# General Algebra II Lesson #5 Unit 6 Class Worksheet #5 For Worksheet #6

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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 cu. ft.

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$$Time = 40 minutes$$

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t	f(t)

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- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)
0	
4	
8	
12 16	
20	
24	
28 32	
36	
40	

- 1. How long will it take to fill the tank? 40 minutes
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t	f(t)
0 4 8 12 16 20 24 28 32 36	
40	

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t   f(t) When $t = 0$ ,	
8	
12 16	
20 24	
28 32 36	
36 40	

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

the tank is full.	
$t \mid f(t)$	When $t = 0$ , the tank is empty.
0	
8 12	
16 20	
24 28	
32 36	

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<b>0</b>	
4 8	
12 16	
20 24	
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40	

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t	f(t)
0	0
<b>4</b> <b>8</b>	
8 12	
16	
20 24	
28	
32	
<b>36 40 ♦</b>	
, 10	

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**· 40** |

t	f(t) W	hen t = 0, the tank is empty.
<b>0</b> <b>4</b>	Th.	e water is 0 inches deep.
0 4 8 12	$\mathbf{W}$	hen t = 40,
16 20	, ,	
24 28 32		
36		

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t   f(t)	When $t = 0$ ,
$\begin{bmatrix} 0 & 0 \\ 4 & \end{bmatrix}$	The water is
4 8 12 16	When $t = 40$
$\begin{bmatrix} 20 \\ 24 \end{bmatrix}$	
28 32	
36	

When t = 0, the tank is empty. The water is 0 inches deep. When t = 40, the tank is full.

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t   f(t)	When $t = 0$ , the tank is empty.
$\begin{bmatrix} 0 \\ 4 \end{bmatrix}$	The water is 0 inches deep.
0 4 8 12 16 20 24 28 32 36	When $t = 40$ , the tank is full.
20 24	The water is 60 inches deep.
28 32	
36	

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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<u>t</u>	f(t)	When
<b>0</b> <b>4</b>	0	The w
4 8 12 16		When
16 20 24 28		The w
<b>32</b>		
$\Rightarrow \begin{array}{c} 36 \\ 40 \end{array}$	60	

When t = 0, the tank is empty. The water is 0 inches deep. When t = 40, the tank is full. The water is 60 inches deep.

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

_t	$\int f(t)$	
0	0	
<b>4</b> <b>8</b>		
8 12		
16		
20 24		
<b>28</b>		
32 36		
40	60	

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t	f(t)	
0	0	
<b>4</b> <b>8</b>		
<b>12</b>		
16 20		
24		
28 32		
36 40	60	
40	UU	

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t	<b>f(t)</b>	<u> </u>
0	0	
<b>4</b> <b>8</b>		
<b>12</b>		
16 20		
24 28		
32		
36 40	60	
• •	1 ~ ~	•

# The water depth increases 60 inches

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	t	$\int \mathbf{f}(\mathbf{t})$	<u> </u>
	<b>-</b> 0	0	
	<b>4</b> <b>8</b>		
	8 12		
	16		
	20 24		
	24 28		
	32 36		
L,	<b>&gt;</b> 40	60	4

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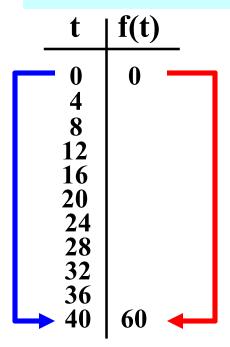
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	t	$\int f(t)$	<u> </u>
	<b>-</b> 0	0	$\neg$
	<b>4</b> <b>8</b>		
	12 16		
	<b>20</b>		
	24 28		
	32 36		
L	<b>40</b>	60	<b>←</b>

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<b>-</b> 0	0	$\overline{}$
<b>4</b> <b>8</b>		
<b>12</b>		
16 20		
24		
28 32		
<b>36</b>	60	
<b>40</b>	60	

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_	t	f(t)	)
	0	0	
	<b>4</b> <b>8</b>		
	8 12		
	16		
	20 24		
	<b>28</b>		
	32 36		
	40	60	<b>←</b>

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	It increases at 1.5 inches
16 20 24 28 32 36 40 60	per minute.
32 36	It increases 6 inches
40   60	every 4 minutes.

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0	0	
8		
8 12		
16		
20 24		
28		
32 36		
30 40	60	

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t	<b>f(t)</b>	
0	0	
0 4 8	0 6	
8 12		
16		
20 24		
28		
32 36		
<b>30</b> <b>40</b>	60	

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0	0	
<b>4 8</b>	<b>0 6</b>	
8 12		
16		
20 24		
28		
32 36		
<b>40</b>	60	

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0	0
<b>4 8</b>	6
<b>8</b> 12	12
16	
20	
24 28	
32	
36	<b>60</b>
40	60

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0	0
	6
8	12
12	
16	
20 24	
24 28	
32	
36	
<b>40</b>	60

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t	f(t)	_
0	0	•
0 4 8	6	
	12	
12 16	18	
20		
24		
28		
32 36		
<b>40</b>	60	

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0	0	
0 4 8	6	
	12	
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20		
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36 36		
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32 36	60	It increases 6 inches
40	60	every 4 minutes.

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0	0	
0 4 8	6	
8	12	
<b>12</b>	18	
16	24	
20		
24		
28		
32 36		
<b>40</b>	60	

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- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

<u>t</u>	f(t)	_
0 4 8 12 16 20 24 28 32 36 40	0 6 12 18 24 30	•
, ,		

. 6/1

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	I(t)
0 4 8 12 16 20 24	0 6 12 18 24 30
28 32 36 40	60

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	<b>f(t)</b>
0 4 8 12	0 6 12 18
$ \begin{array}{c} 16\\20\\24\\28\\32 \end{array} $	24 30 36
36 40	60

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	(t)
0 4 8 12 16 20 24 28	0 6 12 18 24 30 36
32 36 40	60

. 6/1

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

<u>t</u>	<u>f(t)</u>
0 4 8 12 16 20 24 28 32 36 40	0 6 12 18 24 30 36 42
40	ן טט

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

<u>t</u>	<b>f(t)</b>	
0 4 8 12 16 20 24 28 32 36 40	0 6 12 18 24 30 36 42	

. 6/1

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	<b>f(t)</b>	
0 4 8 12 16 20 24 28	1(t) 0 6 12 18 24 30 36 42 48	
32 36 40	60	

. 6/1

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	<b>f(t)</b>	
0	0	
4	6	
8	12	
12	18	
16	24	
20	30	
24 28	36 42	
32	48	
36	10	
40	60	

. 6/1

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

<u>t</u>	<b>f(t)</b>	_
0	0	-
	6	
<b>4</b> <b>8</b>	12	
12	18	
16	24	
20	30	
24	36	
28	42	
32	48 54	
→ 36		
40	60	

The water depth increases 60 inches in 40 minutes.

It increases at 1.5 inches per minute.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

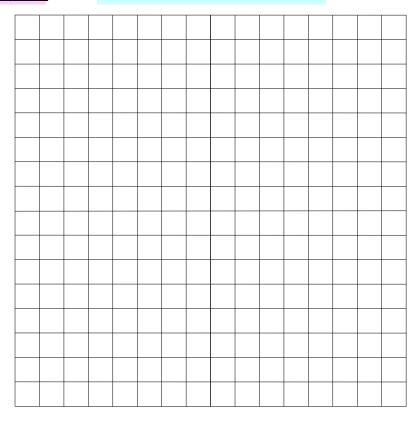
_t	(f(t)
0	0
<b>4</b> <b>8</b>	6
12	12 18
16	24
20 24	30 36
<b>28</b>	42
32 36	48 54
<b>40</b>	60

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

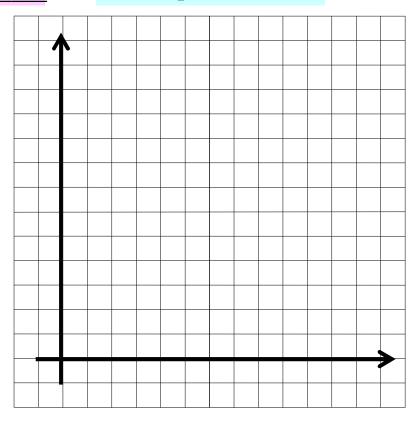
t	f(t)
0	0
<b>4</b>	6
<b>8</b>	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
_	_



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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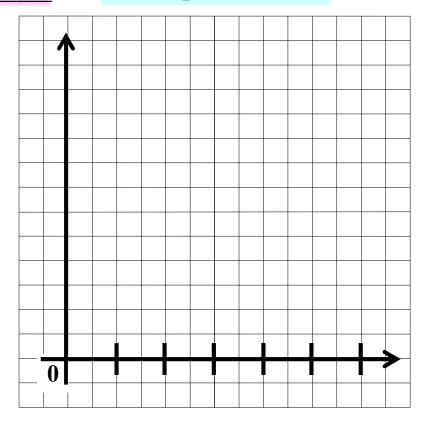
t	f(t)
<b>0 4</b>	0 6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

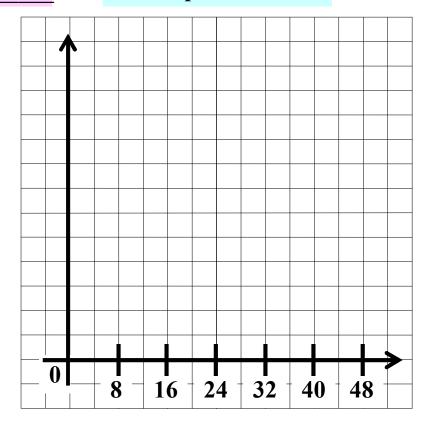
t	f(t)
0	0
<b>4</b> <b>8</b>	6
12 16	18 24
20	30
24 28	36 42
32 36	48 54
40	60



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

t	f(t)
0	0
4 8	6
12	12 18
16	24
20 24	<b>30</b> <b>36</b>
28	42
32 36	48 54
40	60

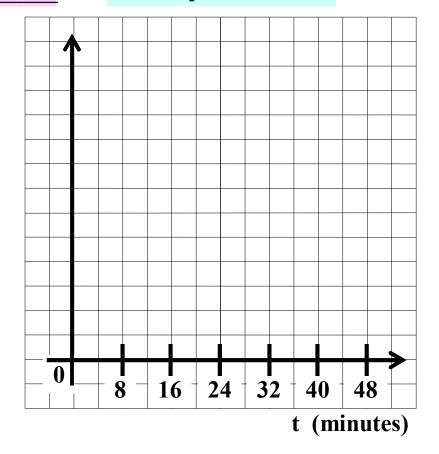


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3. Graph function f.

<u>t</u>	f(t)
0	0
4	6
8	<b>12</b>
12	18
16	24
20	30
24	36
28 32	42 48
36	54
<b>40</b>	60
••	

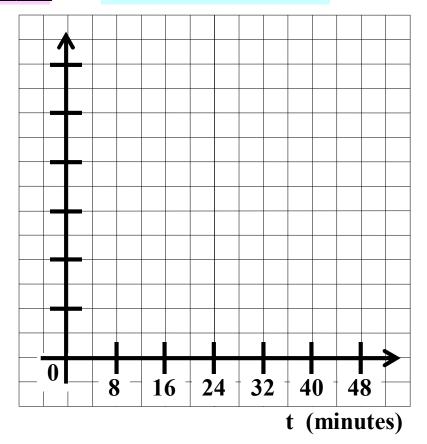


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3. Graph function f.

t	f(t)
0	0
4	6
8	<b>12</b>
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60

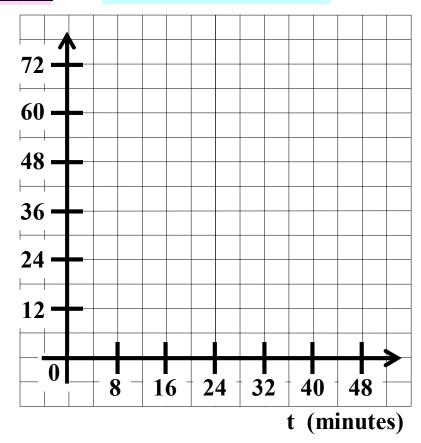


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1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

t	f(t)
0	0
4	6
8	<b>12</b>
12	18
16	24
20	30
24	36
28	42
32 36	48 54
<b>40</b>	60
TU	00

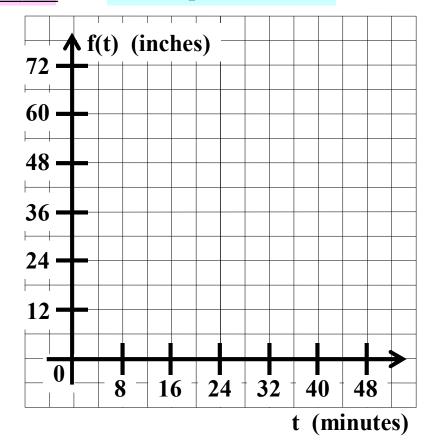


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1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

t	f(t)
0	0
<b>4</b>	6
<b>8</b>	12
12	18
16	24
20	$\overline{30}$
24	36
28	42
32	48
36	54
40	60

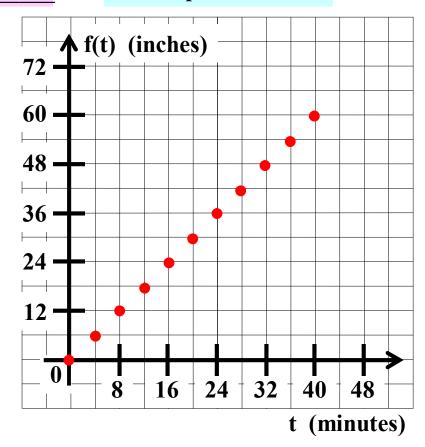


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<u>t</u>	<b>f(t)</b>
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60

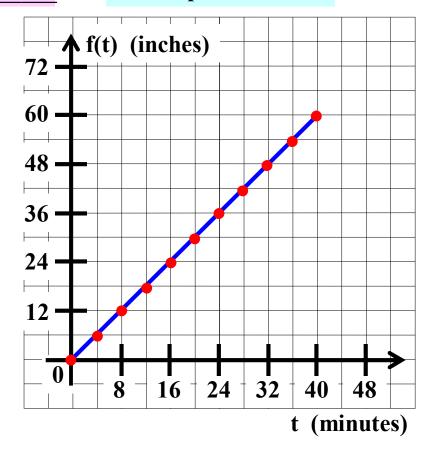


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<u>t</u>	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48 54
36 40	60
40	00

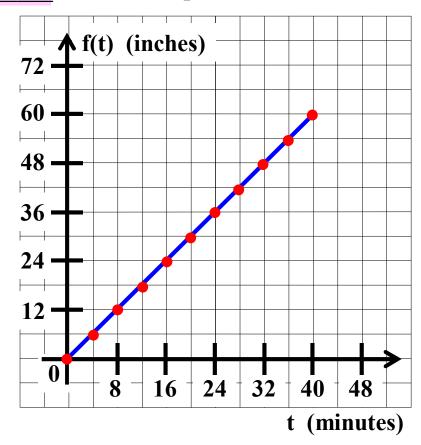


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t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60

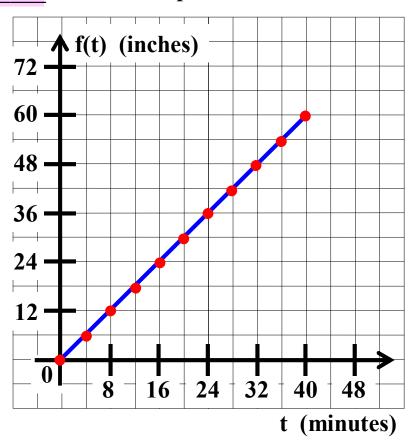


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t	f(t)	
0 4 8	0 6 12	
12 16 20 24 28	18 24 30 36 42	
32 36 40	42 48 54 60	

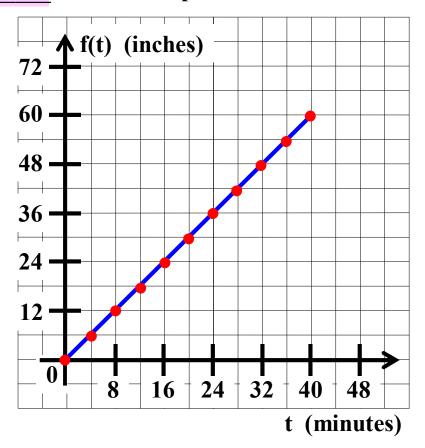


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- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)	_
0	0	slope =
4	6	
8	12	
<b>12</b>	18	
16	24	
<b>20</b>	30	
24	<b>36</b>	
28	42	
32	48	
36	54	
40	60	

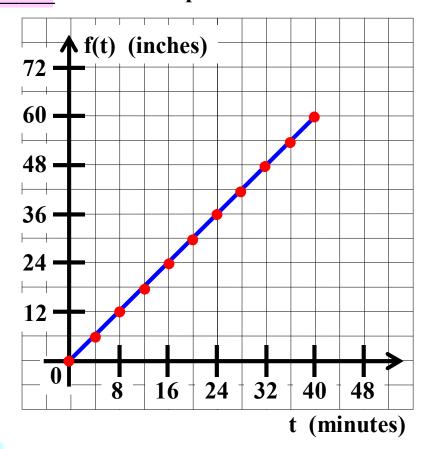


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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

<u>t</u>	f(t)	- wiso
0	0	$slope = \frac{rise}{run}$
4	6	
8	12	
<b>12</b>	18	
16	24	
<b>20</b>	30	
24	36	
<b>28</b>	42	
<b>32</b>	48	
<b>36</b>	54	
40	60	

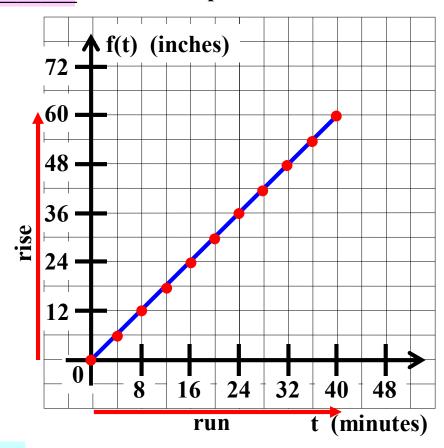


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2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)	- wice
0	0	$slope = \frac{rise}{run}$
4	6	
8	12	
<b>12</b>	18	
16	24	
<b>20</b>	30	
24	36	
<b>28</b>	42	
<b>32</b>	48	
<b>36</b>	54	
40	60	

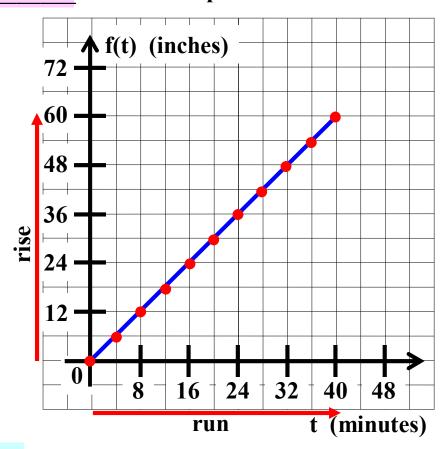


A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)	wigo 60
0	0	$slope = \frac{rise}{run} = \frac{60}{40}$
4	6	
8	12	
<b>12</b>	18	
16	24	
20	30	
24	36	
28	42	
<b>32</b>	48	
<b>36</b>	54	
40	60	

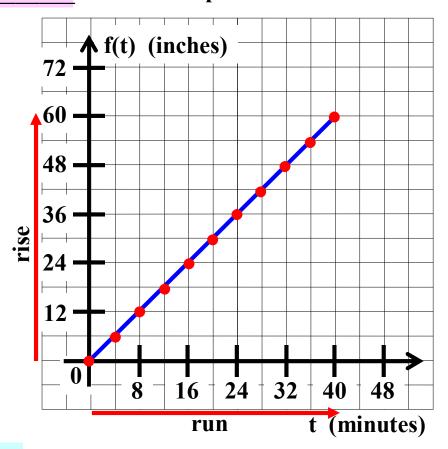


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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)	wigo 60
0	0	$slope = \frac{rise}{run} = \frac{60}{40} = 1.5$
4	6	
<b>4</b> <b>8</b>	12	
<b>12</b>	18	
<b>16</b>	24	
<b>20</b>	30	
24	36	
<b>28</b>	42	
<b>32</b>	48	
36	54	
40	60	



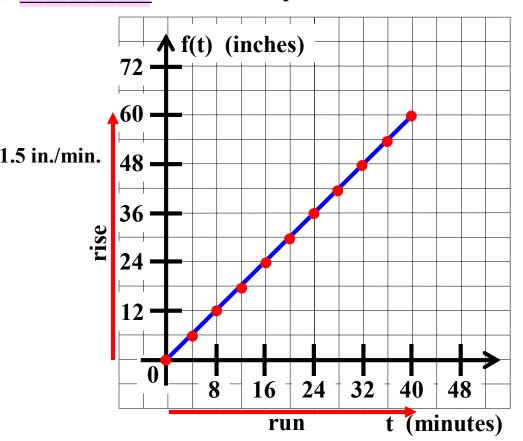
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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

f(t)	····
0	$slope = \frac{rise}{run} = \frac{60}{40} = 1$
6	
<b>12</b>	
18	
<b>24</b>	
<b>30</b>	
<b>36</b>	
<b>42</b>	
48	
54	
	0 6 12 18 24 30 36 42

40 | 60

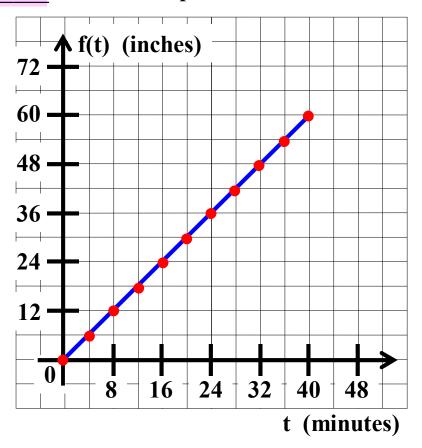


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- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

_t	f(t)	wise 60
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
4	6	
8	12	
<b>12</b>	18	
16	24	
<b>20</b>	30	
24	36	
<b>28</b>	42	
24 28 32	48	
36	54	
<b>40</b>	60	



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

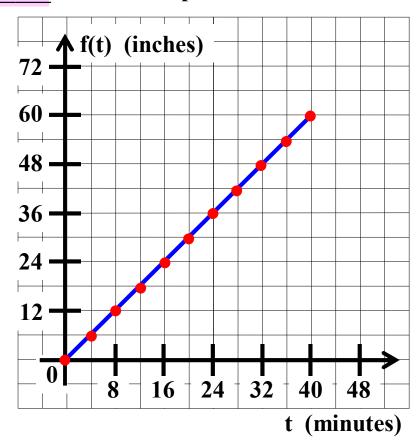
- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

36

**60** 

ic tan	K 15 Tull.	
t	f(t)	wigo 60
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min}$
4	6	'y-intercept' =
<b>12</b>	18	
16	24	
<b>20</b>	30	
24	36	
28	42	
32	48	
	t 0	0 0 4 6 8 12 12 18 16 24 20 30 24 36 28 42



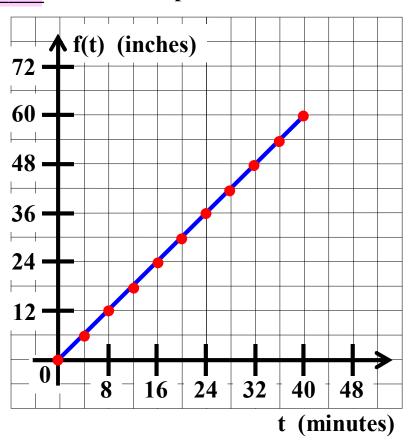
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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

40 | 60

tiit tuii	IX IS I WIII	
<u>t</u>	f(t)	riso 60
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min}$
4	6	'y-intercept' = 0
8	12	•
12	18	
16	24	
20	30	
24 28	36	
28	42	
32	48	
<b>36</b>	54	



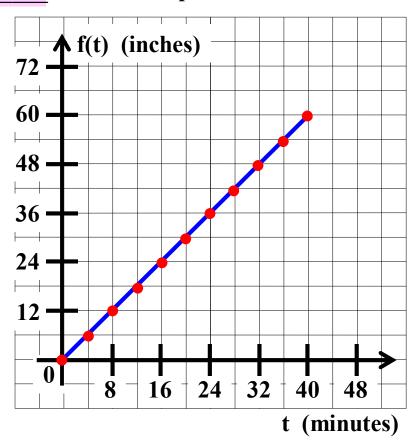
A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

40 | 60

•	ic tuii	IL ID I MII	•
	t	f(t)	wigo 60
	0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
	<b>4</b> <b>8</b>	6	'y-intercept' = $0$
	8	12	v
	12	18	y = mx + b
	<b>16</b>	24	·
	<b>20</b>	30	
	20 24 28 32	36	
	<b>28</b>	42	
	<b>32</b>	48	
	<b>36</b>	54	

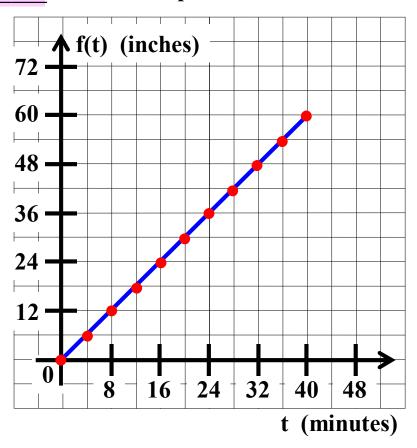


A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

· · · · · · · · · · · · · · · · · · ·		
t	f(t)	•
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
0 4 8 12	6 12	'y-intercept' = 0
	18	y = mx + b
16 20	24 30	$\mathbf{v} =$
24	<b>36</b>	J
20 24 28 32	42 48	
36 40	54 60	

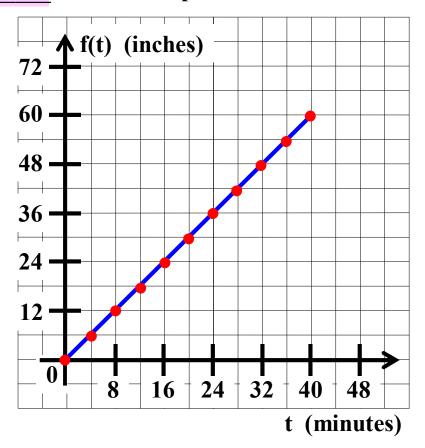


A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

ine tam	K 15 Tull.	
t	f(t)	• (0
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
0 4 8 12	6 12	'y-intercept' = 0
	12 18	y = mx + b
16 20	24 30	y = 1.5x
24	36	<i>J</i> = 33 = 1
28 32	42 48	
36 40	54 60	
-		



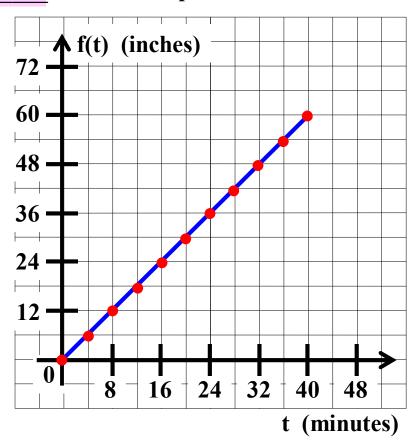
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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

40 | 60

	ic tail.	ix is iuii.	
	t	f(t)	
•	0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
	0 4 8 12	6 12	'y-intercept' = 0
	8	12	
	<b>12</b>	<b>18</b>	y = mx + b
	16	24	•
	<b>20</b>	30	y = 1.5x + 0
	20 24 28 32 36	24   30   36   42	
	<b>28</b>		
	<b>32</b>	48 54	
	<b>36</b>	54	
	4.0	l (A	



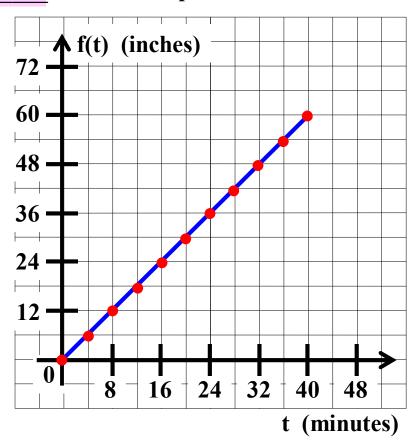
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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

40 | 60

tiic taiii	IX IS I WIII	
t	f(t)	• 60
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
4	6	'y-intercept' = 0
0 4 8 12	12 18	y = mx + b
16	24	
20 24	30 36	y = 1.5x
28 32	42	
32 36	48 54	
30		

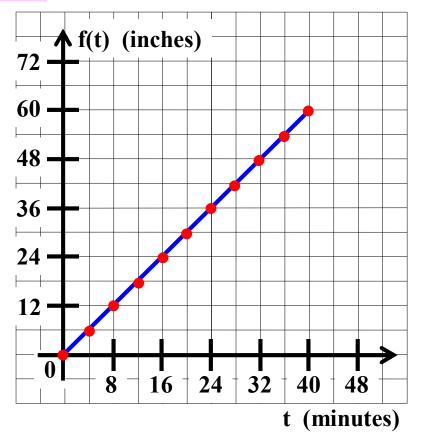


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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

LI	ic tair	K 15 IUII	
	t	f(t)	• 60
•	0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
	4 8 12	6	'y-intercept' = 0
	8	12	
	12	18	y = mx + b
	16	24	4 2
	20	30 36	y = 1.5x
	24		
	24 28 32	42	
	3 <i>L</i> 36	48 54	



$$f(t) =$$

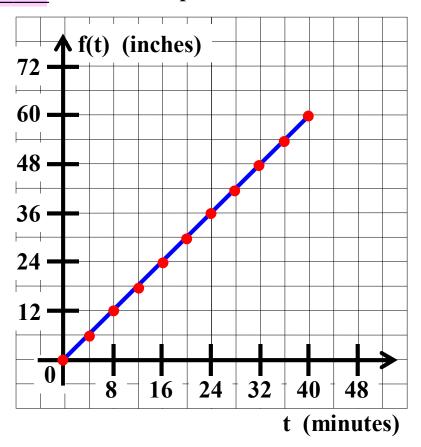
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- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full

40 | 60

u	ie taii	K 15 1UII.	
	t	<b>f</b> (t)	
•	0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
	<b>4</b> <b>8</b>	6	'y-intercept' = 0
	8	12	, I
	<b>12</b>	18 24	y = mx + b
	<b>16</b>	24	
	16 20	30 36	y = 1.5x
	24	36	
	28	42	
	32	48	
	36	54	



$$f(t) = 1.5t$$

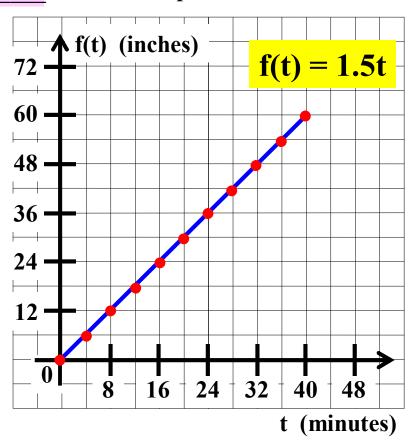
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40 | 60

unc tam	K 15 Tull.	
t	f(t)	•
0	0	slope = $\frac{\text{rise}}{\text{run}} = \frac{60}{40} = 1.5 \text{ in./min.}$
0 4 8 12	6 12	'y-intercept' = 0
	18	y = mx + b
16 20	24 30	y = 1.5x
20 24 28 32	36	J III
28 32	42 48	
36	48 54	



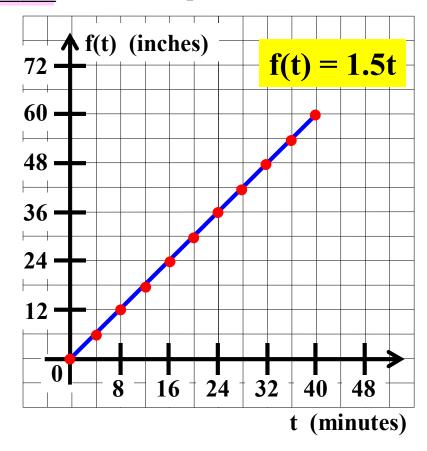
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0 0 4 6 8 12 12 18 16 24
20   30 24   36 28   42 32   48 36   54 40   60

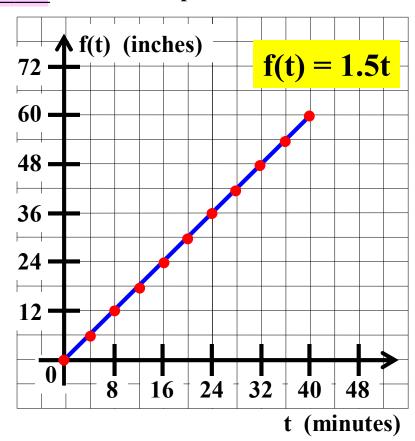


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_t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60



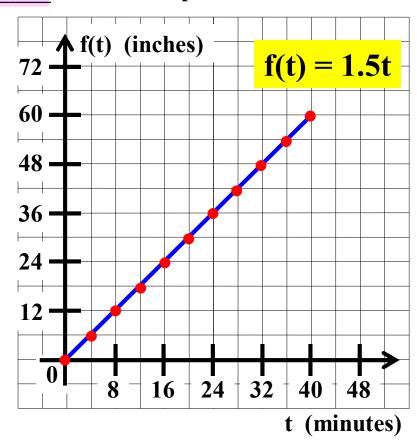
5. What is the domain of function f?

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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t	f(t)
0	0
4	6
8 12	12 18
16	24
20 24	30 36
<b>24 28</b>	42
32	48
36 40	54 60
ľ	



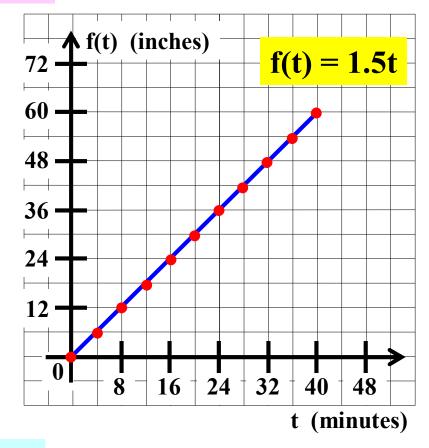
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t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60



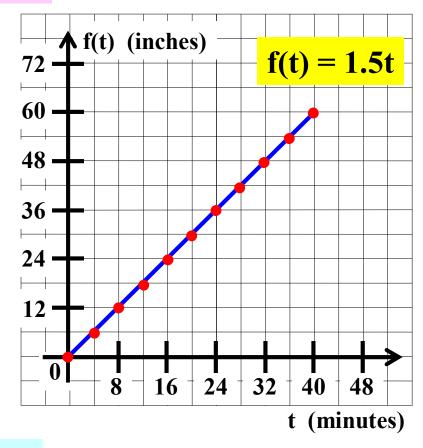
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t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60



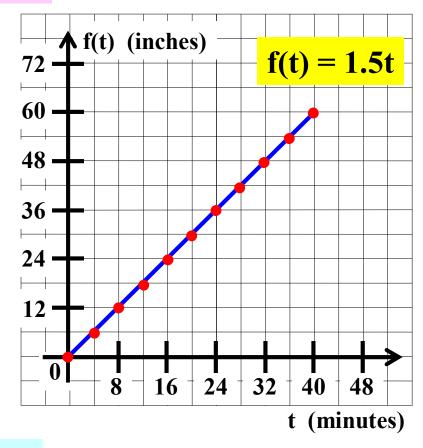
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[0,40]

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- 1. How long will it take to fill the tank?
- 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full. domain



5. What is the domain of function f?

[0,40]

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3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full. 1 . . . . . . . . .

24

**30** 36 42

48

54

**20** 

**32** 

**36** 

	<b>9</b> 4.5	domain
t	<b>f</b> (t)	[0,40]

	f(t)	=	1.5	t
+				>
32	2 † 4	0	48	

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

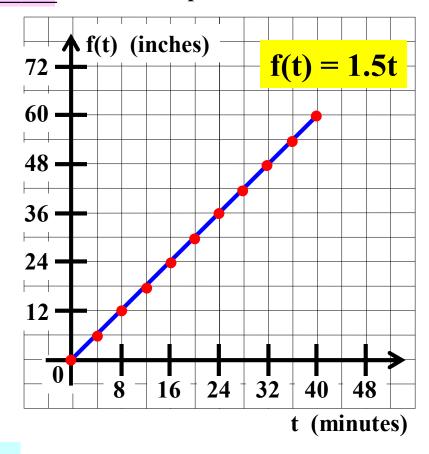
1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

ic twill is fully				
t	f(t)			
0	0			
4	6			
8	12			
<b>12</b>	18			
<b>16</b>	24			
<b>20</b>	30			
24	36			
<b>28</b>	42			
<b>32</b>	48			
<b>36</b>	54			
<b>40</b>	60			

domain [0,40]



6. What is the range of function f?

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

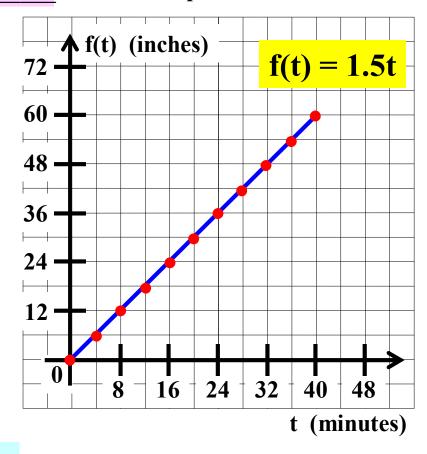
1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)	_
0	0	
4	6	
8	12	
<b>12</b>	18	
16	24	
20	30	
24	36	
28	42	
<b>32</b>	48	
<b>36</b>	54	
40	60	

domain [0,40]



6. What is the range of function f?

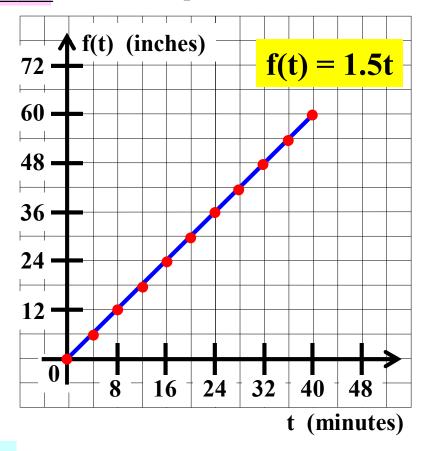
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t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60

domain [ 0 , 40 ]



6. What is the range of function f?

[0,

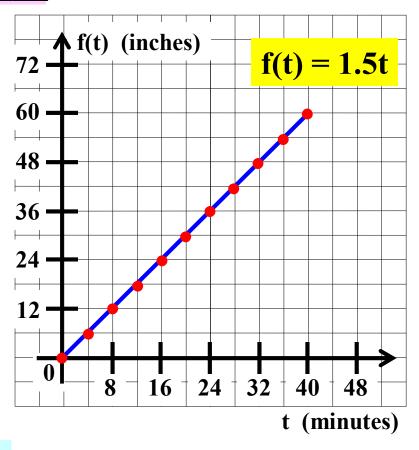
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2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
32	48
36	54
40	60

domain [ 0 , 40 ]



6. What is the range of function f?

[0,60]

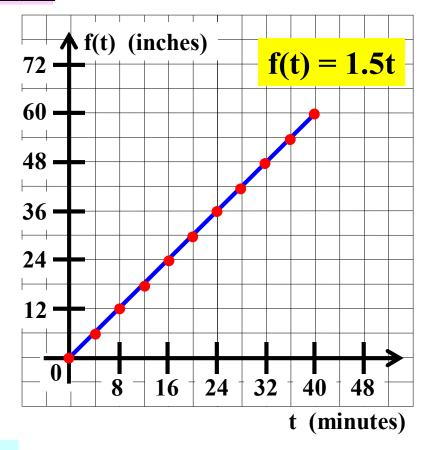
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- 1. How long will it take to fill the tank? 40 minutes
- 3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full.

t	f(t)
0	0
4	6
8	12
12	18
16	24
20	30
24	36
28	42
<b>32</b>	48
36	54
40	60

domain [0, 40]range [0,60]



6. What is the range of function f?

0,60

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42

48

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**60** 

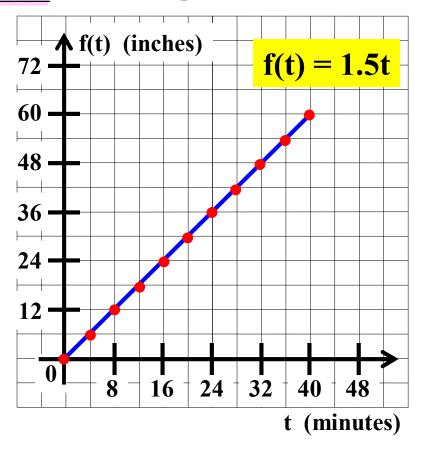
**20** 

**28** 

**32** 

**36** 

ic tank is fun.		domain
<u>t</u>	f(t)	[0,40]
0	0	range
0 4 8 12	$\begin{bmatrix} 0 \\ 6 \\ 12 \end{bmatrix}$	[0,60]
<b>12</b>	18	



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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24

**30** 

**36** 

**42** 

48

54

**60** 

**20** 

**24** 

**28** 

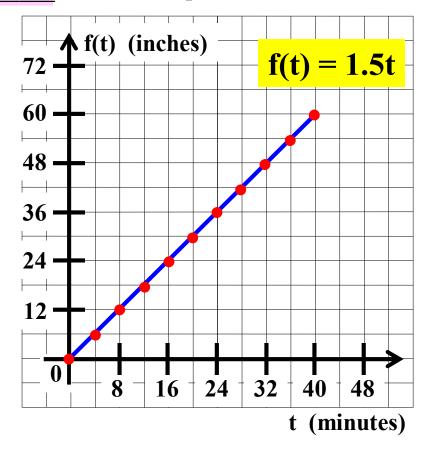
**32** 

**36** 

4	. ((4)	uomam
t	<b>f(t)</b>	[0,40]
•		
U	0	range
4	6	
8	12	[0,60]
12	10	

7. Evaluate f(20).

What does f(20) represent in terms of the problem?



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full. domain

**30** 

**36** 

**42** 

48

54

**60** 

20

**28** 

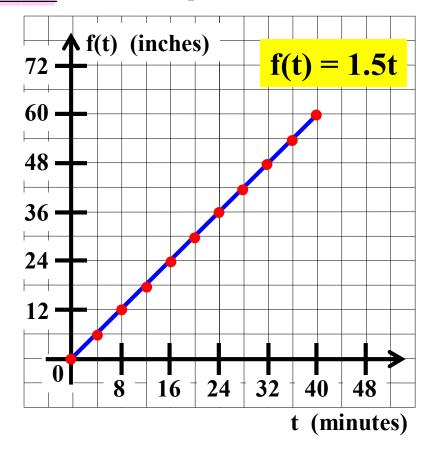
**32** 

**36** 

4	· C(4)	uomam
τ	<b>f(t)</b>	[0,40]
n	۱ ۵	
4	6	<b>range</b>
8	12	[0,60]
<b>12</b>	18	

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2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full. domain

16

20

24 **28** 

**32** 

**36** 

24

**30** 

**36** 

**42** 

48

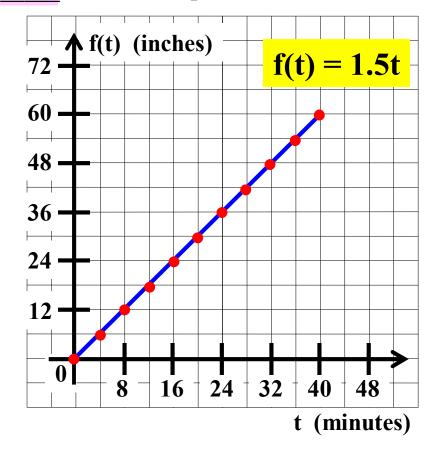
54

**60** 

4 · C(4)		uomam
$\mathbf{t} \mid \mathbf{f}$	<b>f(t)</b>	[0,40]
Λ	١٨	
4		<b>range</b>
0 4 8 12	0 6 12	[0,60]
<b>12</b>	18	

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**30** 

**36** 

**42** 

48

54

**60** 

**20** 

24 **28** 

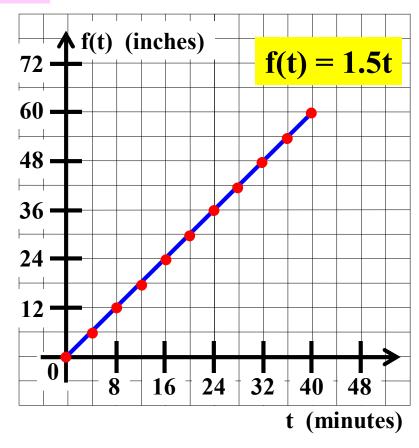
**32** 

**36** 

. 6(4)		domain
t	f(t)	[0,40]
0	0	range
<b>4</b> <b>8</b>	6 12	[0,60]
12	18	L / J
16	24	7. Evaluate f(20).

What does f(20) represent in terms of the problem?

f(20)



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

1. How long will it take to fill the tank? 40 minutes

3. Graph function f.

2. Make a table giving t and f(t) every 4 minutes from t = 0 until the tank is full. .1 . . . . . . .

**30** 

**36** 

**42** 

48

54

**60** 

**20** 

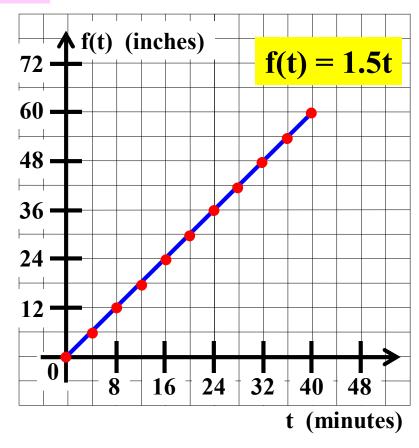
24 **28** 

**32** 

**36** 

4	. (2/4)	domain
<u>t</u>	f(t)	[0,40]
0	0	range
<b>4</b> <b>8</b>	6 12	[0,60]
<b>12</b>	18	
16	24	7. Evaluate f(20).

$$f(20) =$$



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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16

**20** 

24 **28** 

**32** 

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**24** 

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**36** 

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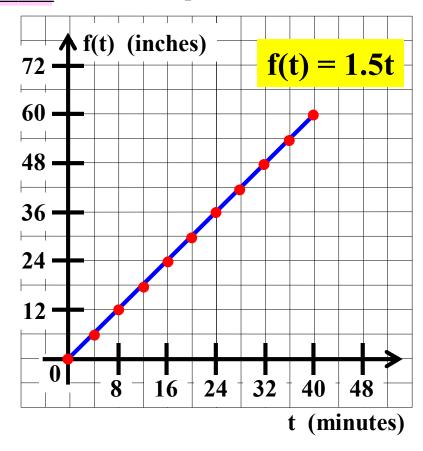
54

**60** 

4	. <b>C</b> (4)	domain
<u>t</u>	<b>f(t)</b>	[0,40]
0	۱ ۵	
4	6	range
0 4 8 12	6 12	[0,60]
12	18	L / J

7. Evaluate f(20).

$$f(20) = 30$$



A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).

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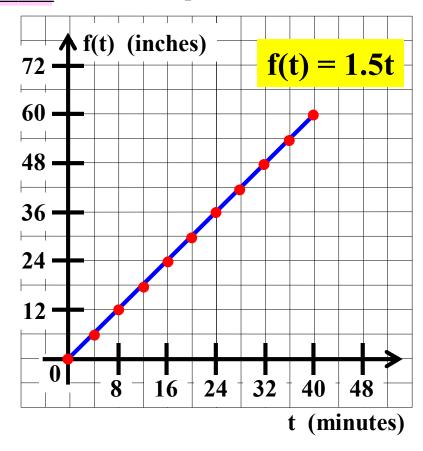
24 **28** 

**32** 

**36** 

		.1.	domain	
t	f(t)	_	[0,40]	
<b>0 4</b>	<b>0 6</b>		range	
8 12	6 12		[0,60]	
<b>12</b>	18		•	
16	24	7. Eva	<b>luate f(20).</b>	

$$f(20) = 30 inches$$



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**20** 

28 32

**36** 

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**36** 

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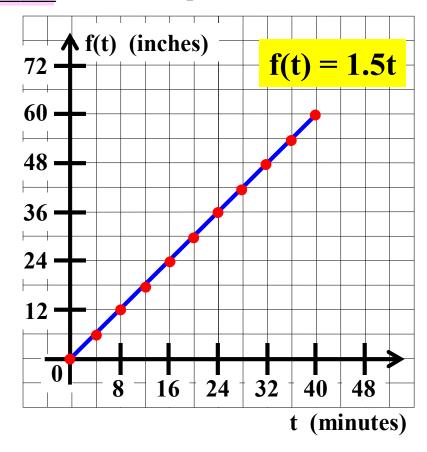
54

**60** 

4	· <b>· · · · · ·</b> · · · · · · ·	domain
<u>t</u>	<b>f(t)</b>	[0,40]
•		[0,10]
<b>0</b> <b>4</b>	0	range
4	6	
8	12	[0,60]
12	18	

7. Evaluate f(20).

$$f(20) = 30$$
 inches



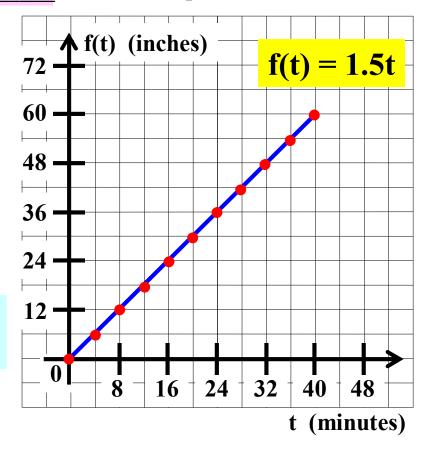
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ne tank is fun.		domain
t	f(t)	[0,40]
0	0	range
0 4 8 12	6 12	[0,60]
12 16	18 24	7. Evaluate f(20).
20 24	30 36	What does f(20) represent
28	42	in terms of the problem?
32 36 40	48 54	C(20) 20 1
40	60	f(20) = 30 inches



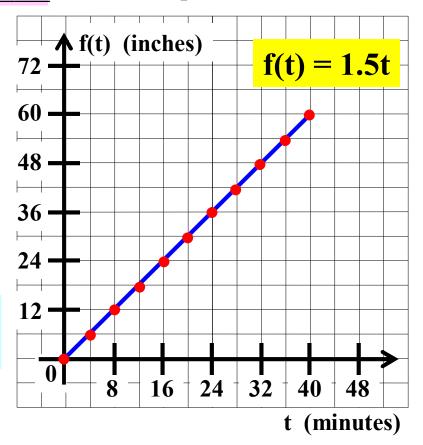
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he tank is full.		domain
t	f(t)	[0,40]
$egin{pmatrix} 0 \\ 4 \end{bmatrix}$	0 6	range
4 8 12	12 18	[0,60]
16	24	7. Evaluate f(20).
20 24	30 36	What does f(20) represent
28 32	42 48	in terms of the problem?
36 40	54 60	f(20) = 30 inches



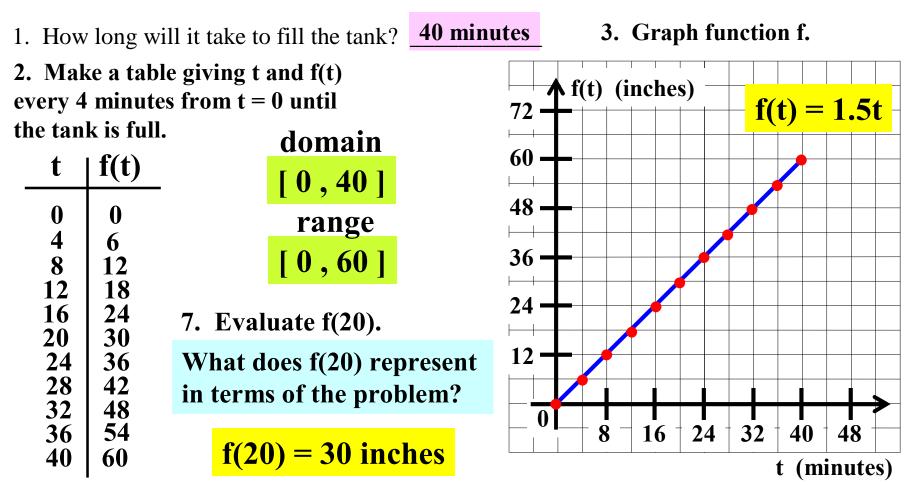
f(20) represents

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1. How long will it take to fill the tank? 40 minutes 3. Graph function f. 2. Make a table giving t and f(t) **★** f(t) (inches) every 4 minutes from t = 0 until f(t) = 1.5t**72** the tank is full. domain 60 | **f(t)** [0, 40]48 0 range [0,60]**36** 12 18 24 16 24 7. Evaluate f(20). **20 30 12 24 36** What does f(20) represent 28 32 **42** in terms of the problem? 48 **36** 54 16 24 **32** 48 40 f(20) = 30 inches**40 60** t (minutes)

f(20) represents the depth of the water

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).



f(20) represents the depth of the water after 20 minutes.

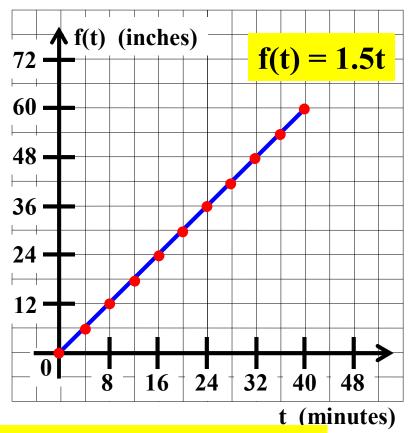
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t	f(t)	[0,40]
0 4 8 12	0 6 12	range [ 0 , 60 ]
12 16 20	18 24 30	7. Evaluate f(20).
24 28 32 36	36 42 48 54	What does f(20) represent in terms of the problem?



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f(20) = 30 inches

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**30** 

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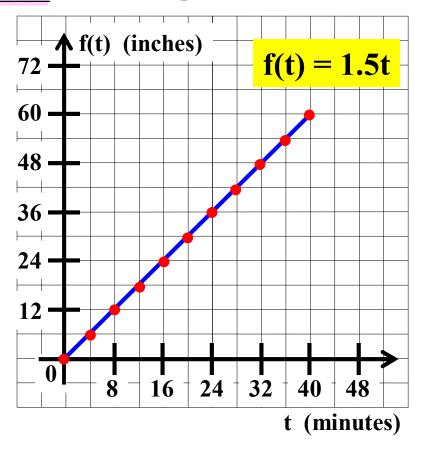
**20** 

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c tank is fun.		domain
<u>t</u>	f(t)	[0,40]
0	0	range
0 4 8 12	$\begin{bmatrix} 0 \\ 6 \\ 12 \end{bmatrix}$	[0,60]
<b>12</b>	18	



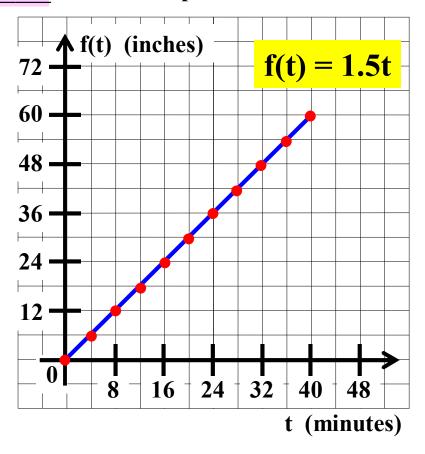
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f(t)	[0,40]
0	range
<b>12</b>	[0,60]
	8. If $f(t) = 20$ , then find
<b>30</b>	the value of t.
<b>42</b>	What does this value of t
54	represent in terms of the problem?
	0 6 12 18 24 30 36 42 48



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**30** 

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**42** 

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54

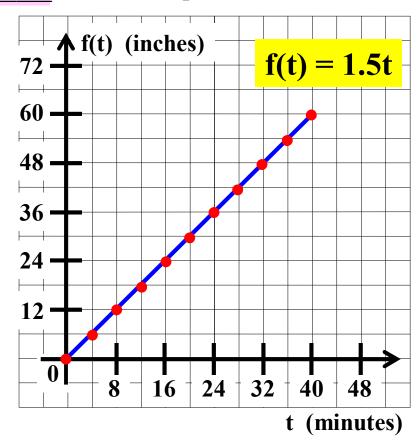
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4	. <b>C</b> (4)	aomain	
<u>t</u>	$\int f(t)$	[0,40]	
0	0	range	
4 8 12	6 12	[0,60]	
12 16	18 24	8. If $f(t) = 20$ , then	

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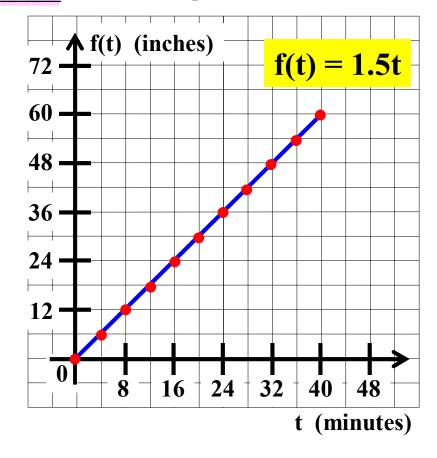
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t lan	k is ruii.   f(t)	domain
0 4 8 12 16 20 24 28 32 36 40	0 6 12 18 24 30 36 42 48 54 60	[0,40]  range [0,60]  8. If f(t) = 20, then find the value of t.  What does this value of t represent in terms of the problem?  f(t) = 20
	•	



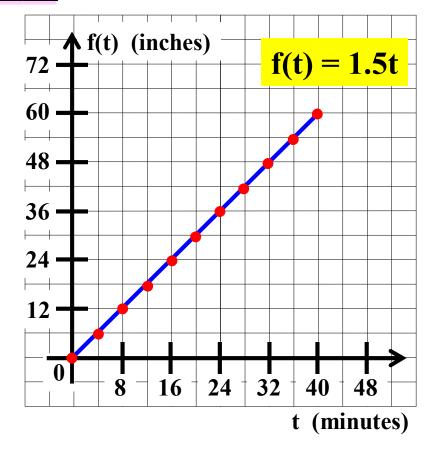
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t	f(t)	[0,40]
0 4 8	0 6	range
8 12 16 20	12 18 24 30	[ 0 , 60 ] 8. If f(t) = 20, then find the value of t.
24 28 32 36	36 42 48 54	What does this value of t represent in terms of the
40	60	problem? $f(t) = 20$



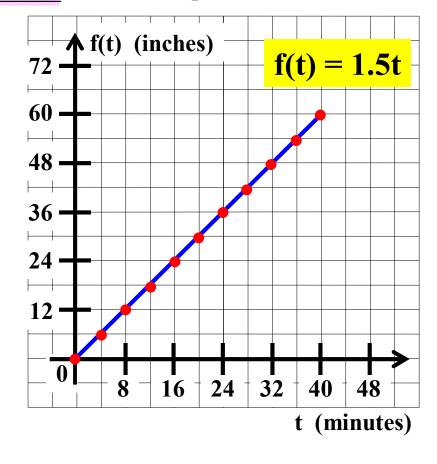
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0 4 8 12 16 20 24 28 32 36 40	0 6 12 18 24 30 36 42 48 54 60	range [0,60]  8. If f(t) = 20, then find the value of t. What does this value of t represent in terms of the problem? f(t) = 20
	-	



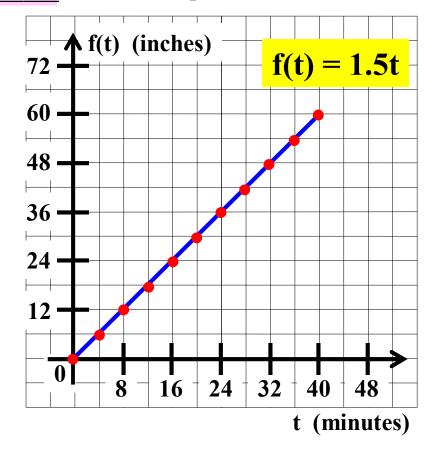
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$t \mid f(t)$		domain		
		[0,40]		
0	0	range		
<b>4 8</b>	6 12	[0,60]		
12 16	18 24	8. If $f(t) = 20$ , then find		
20 24	30 36	the value of t.		
28	42	What does this value of t		
32	48 54	represent in terms of the		
36 40	60	problem?		
-0	f f	$t(t) = 20 \implies t = 0$		



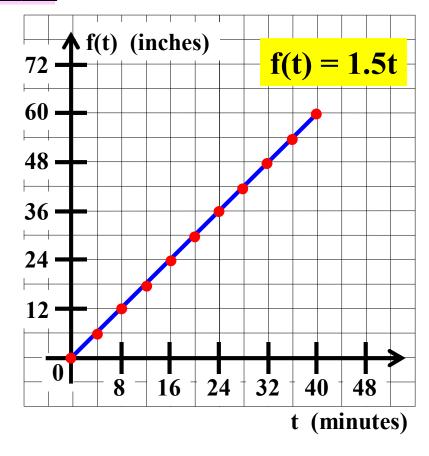
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		uomam			
t	f(t)	[0,40]			
0 4 8	0 6 12 18 24	range [ 0 , 60 ]			
12 16		8. If $f(t) = 20$ , then find			
20 24 28	30 36 42	the value of t. What does this value of t represent in terms of the problem?			
32 36 40	48 54 60				
40	60	$f(t) = 20 \implies t = 13\frac{1}{3}$			



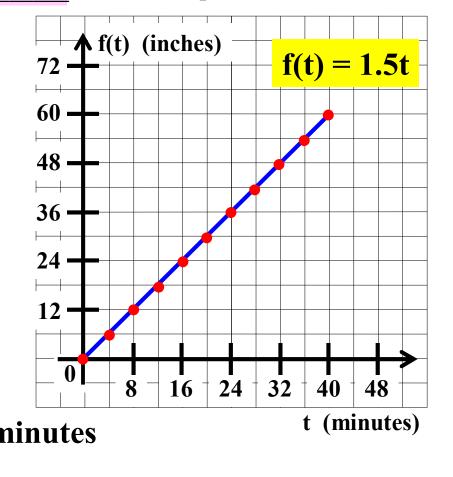
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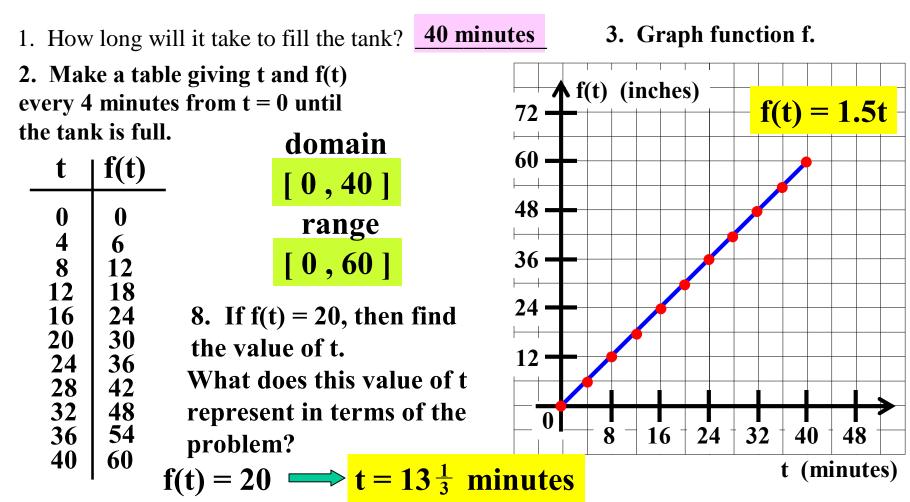
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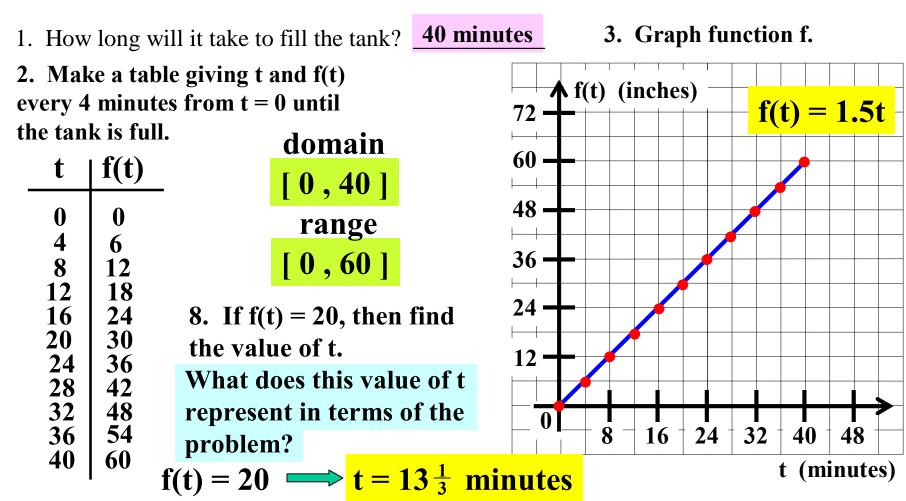
4 .	0(1)	aomam	60 🛨
<u>t</u>	f(t)	[0,40]	
0	0	range	48 —
4 8 12	6 12	[0,60]	36
12 16	18 24	8. If $f(t) = 20$ , then find	24
20	30	the value of t.	12
24 28	36 42	What does this value of t	
32	48 54	represent in terms of the	
36 40	60	problem?	• 4
	I	$f(t) = 20 \implies t = 13\frac{1}{3} \text{ n}$	ninutes



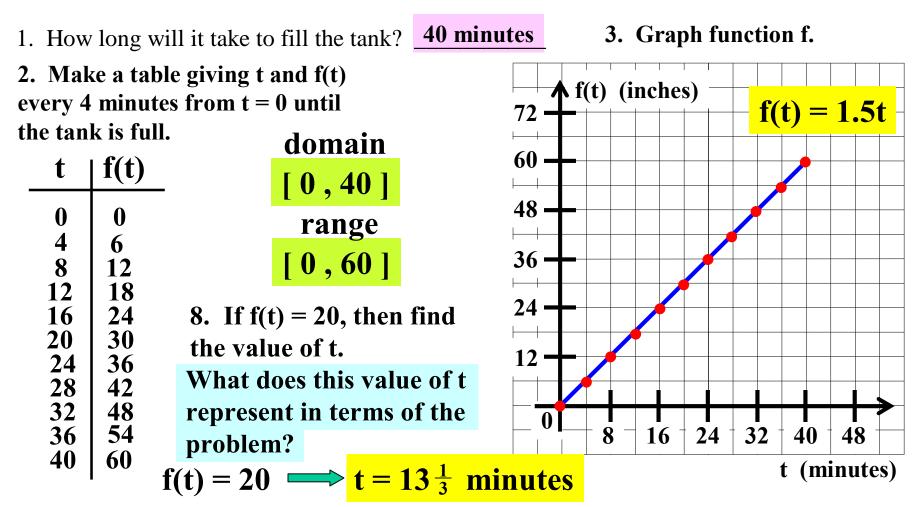
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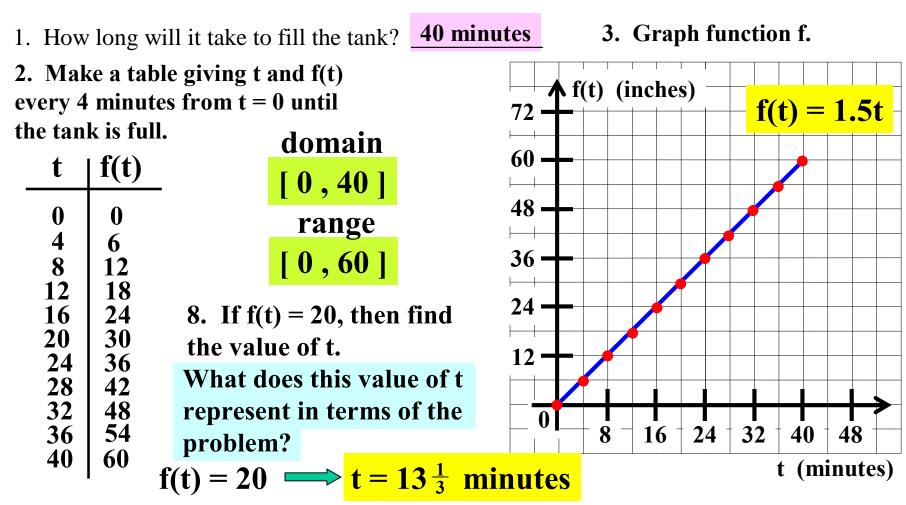


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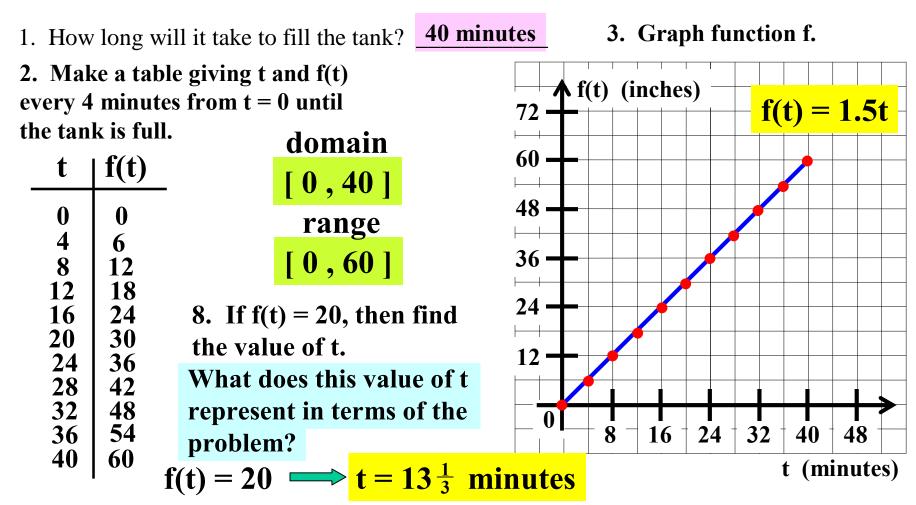
This represents

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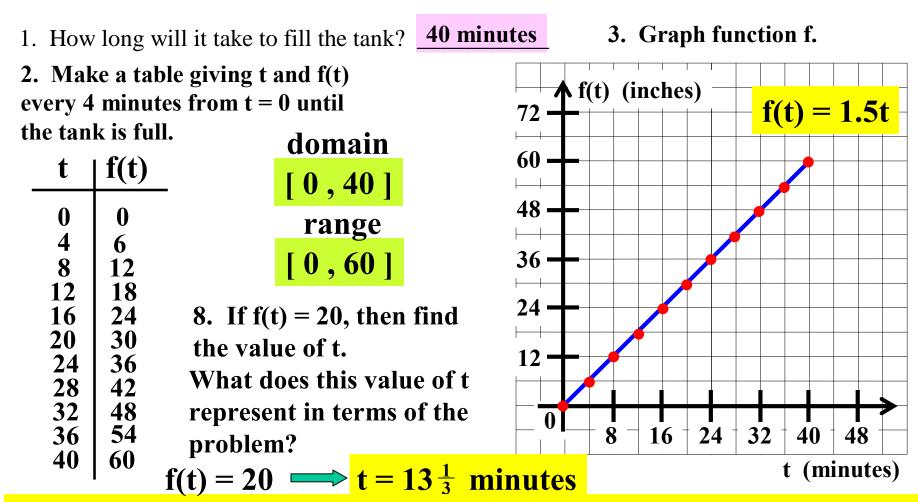
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This represents the time it took for the water to be 20 inches deep.

A rectangular water tank is 12 feet long, 6 feet wide, and 5 feet deep. The tank is empty initially and water is pumped into the tank at 9 cubic feet per minute until the tank is full. Let t represent the time that water has been pumped into the tank (in **minutes**). Let f(t) represent the **depth of the water** in the tank (in **inches**).



This represents the time it took for the water to be 20 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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9. How long will it take to empty the tank? \_\_\_\_\_

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$$V = LWH$$

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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$$V = (6 \text{ ft.})($$

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 $V = 120$ 

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9. How long will it take to empty the tank?

$$V = LWH$$

$$V = (6 \text{ ft.})(4 \text{ ft.})(5 \text{ ft.})$$

$$V = 120$$
 cu. ft.

Time = 120 cu. ft.  $\div$  8 cu. ft. per min.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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$$V = (6 \text{ ft.})(4 \text{ ft.})(5 \text{ ft.})$$

$$V = 120$$
 cu. ft.

Time = 120 cu. ft.  $\div$  8 cu. ft. per min.

Time = 15 minutes

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

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Time = 120 cu. ft.  $\div$  8 cu. ft. per min.

Time = 15 minutes

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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9. How long will it take to empty the tank? 15 minutes

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9. How long will it take to empty the tank? 15 minutes

t	F(t)

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

t	F(t)
0	
3	
6	
9	
12	
15	

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

t	F(t)	When $t = 0$ ,
0		, , ,
3		
6		
9		
<b>12</b>		
15		

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

<u>t</u>	F(t)	When $t = 0$ ,
<b>0</b>		· · · · · · · · · · · · · · · · · · ·
3		
6		
9		
12		
15		

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

<u>t</u>	F(t)	When t =	= <b>0.</b> the 1	tank is	full.
<b>0</b>			,		
3					
6					
9					
12					
15					

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
<b>0</b>	
3	
6	
9	
12	
15	
_	

When t = 0, the tank is full. The water is 60 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

 t	F(t)
0	60
3	
6	
9	
<b>12</b>	
15	

When t = 0, the tank is full. The water is 60 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

<u>t</u>	F(t)
0	60
3	
6	
9	
12	
15	

When t = 0, the tank is full. The water is 60 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

**15** 

t	F(t)	When $t = 0$ , the tank is full.
<b>0 3</b>	60	The water is 60 inches deep
<b>3 6</b>		
9		When $t = 15$ ,
12		

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

<u>t</u>	F(t)	When t =
<b>0 3</b>	60	The wate
3		THE Wate
6		When t =
9		VV II CII C
12		
<del> </del> 15		

When t = 0, the tank is full. The water is 60 inches deep. When t = 15,

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

**15** |

t	F(t)	When $t = 0$ , the tank is full.
0 3	60	The water is 60 inches deep.
6 9		When $t = 15$ , the tank is empty
12		

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

$t \mid F(t)$	When $t = 0$ , the tank is full.
$\begin{bmatrix} 0 \\ 3 \end{bmatrix}$	The water is 60 inches deep.
6 9	When $t = 15$ , the tank is empty.
12 15	The water is 0 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

<u>t</u>	$\mathbf{F}(t)$	
0	60	
3		
6		
9		
12		
<b>1</b> 5	0	

When t = 0, the tank is full. The water is 60 inches deep.

When t = 15, the tank is empty. The water is 0 inches deep.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

t	F(t)	When $t = 0$ , the tank is full.
0 3	60	The water is 60 inches deep.
		The water is of menes deep.
6		When $t = 15$ , the tank is empty.
9 12		The water is 0 inches deep.
15	0	The water is a menes acept

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

t	F(t)
0	60
3	
6	
9	
12	
15	0

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0	60
3	
6	
9	
12	
15	0

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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	
6	
9	
12	
15	0

# The water depth decreases 60 inches

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

	t	F(t)	)
	- 0	60	
	3		
	6		
	9		
	<b>12</b>		
<b>L</b>	15	0	4

## The water depth decreases 60 inches

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)	_
- 0	60	
3		
6		
9		
<b>12</b>		
15	0	4

## The water depth decreases 60 inches in 15 minutes.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)	<u> </u>
<b>-</b> 0	60	_
3		
6		
9		
12		
15	0	<b>←</b>

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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	t	F(t)	)
	<b>-</b> 0	60	_
	3		
	6		
	9		
	12		
<b>L</b>	15	0	4

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It decreases at 4 inches per minute.

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9. How long will it take to empty the tank? 15 minutes

$\mathbf{f} \mid \mathbf{F}(\mathbf{t})$	The water depth decrease
0 60	60 inches in 15 minutes.
3 6	It decreases at 4 inches
9	per minute.
12 15 0	It decreases 12 inches
1	every 3 minutes.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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t	$ \mathbf{F}(\mathbf{t}) $	The v
0		60 in
0 3 6 9 12 15		It de
9		per n
12		•
15	0	It de

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

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9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
<b>3</b>	48
6	
9	
12	
15	0

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	48
6	
9	
12	
15	0

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)	
0	60	
3	48 36	
<b>→</b> 6	36	
9		
<b>12</b>		
15	0	

The water depth decreases 60 inches in 15 minutes. It decreases at 4 inches

It decreases 12 inches every 3 minutes.

per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	48
6	36
<b>→</b> 9	
12	
15	0

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	48
6	36
<b>→</b> 9	24
12	
15	0

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	48
6	36
9	24
<b>→</b> 12	
15	0
6 9 → 12	36 24

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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F(t)
60
48
36
24
12
0

The water depth decreases 60 inches in 15 minutes.

It decreases at 4 inches per minute.

It decreases 12 inches every 3 minutes.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

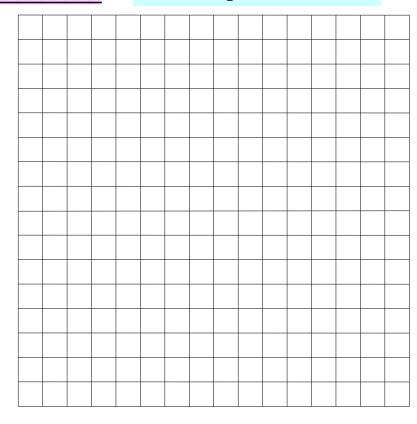
t	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank? 15 minutes

11. Graph function F.

<u>t</u>	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

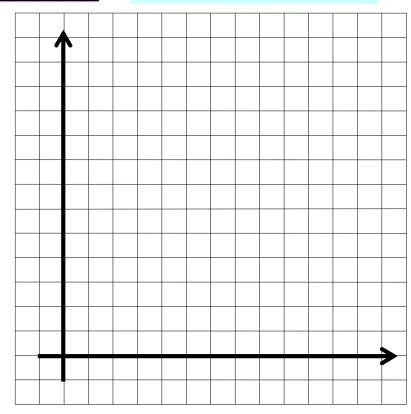


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t	$\mathbf{F}(\mathbf{t})$
0	60
3	48
6	36
9	24
12	12
15	0

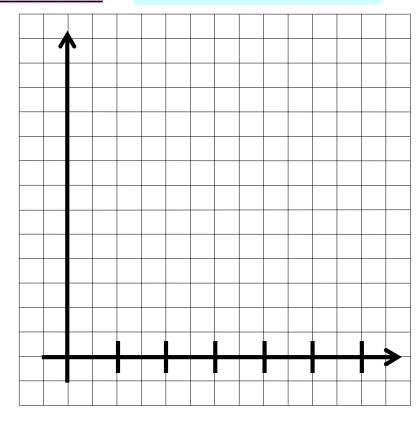


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9. How long will it take to empty the tank? 15 minutes

11. Graph function F.

<u>t</u>	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

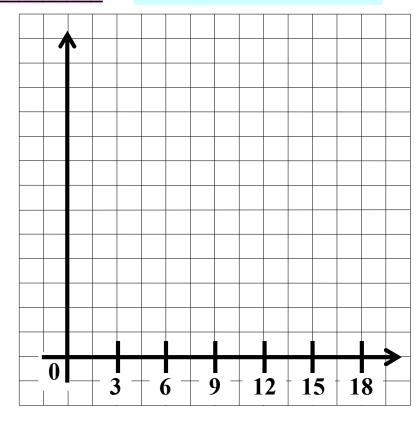


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9. How long will it take to empty the tank? 15 minutes

11. Graph function F.

t	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

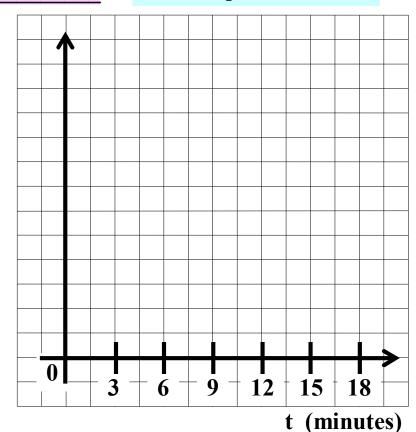


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9. How long will it take to empty the tank?

11. Graph function F.

t	$\mathbf{F}(\mathbf{t})$
0	60
3	48
6	36
9	24
12	12
15	0



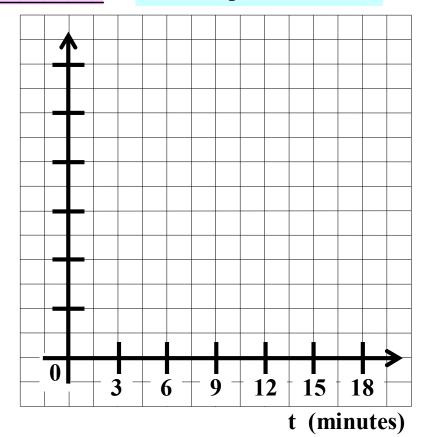
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9. How long will it take to empty the tank?

,	_
nutes	S
	inute

11. Graph function F.

<u>t</u>	F(t)
0	60
3	48
6	36
9	24
12	12
15	0



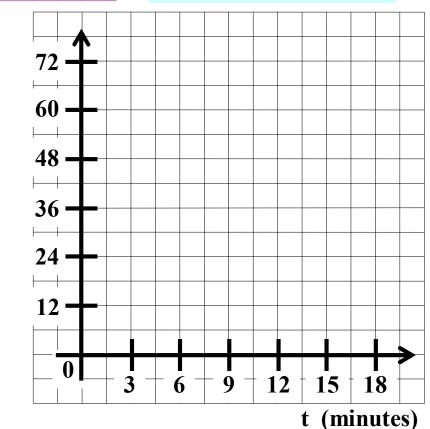
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#### 15 minutes

#### 11. Graph function F.

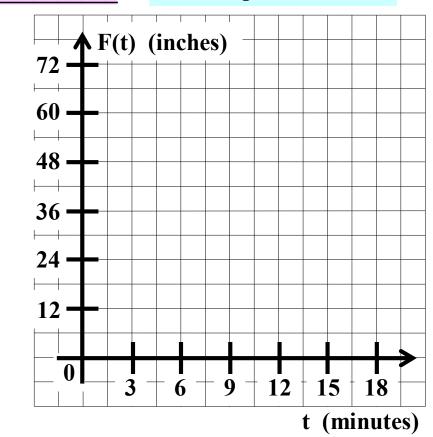


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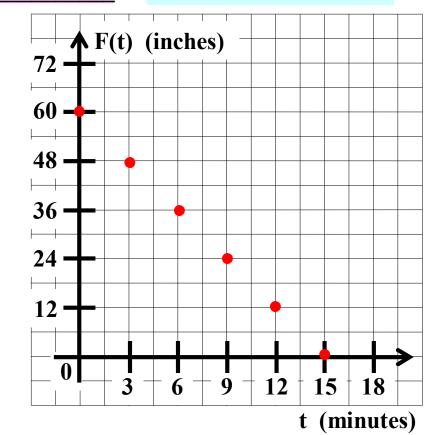
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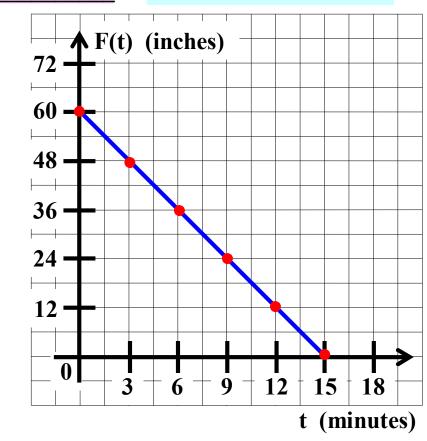
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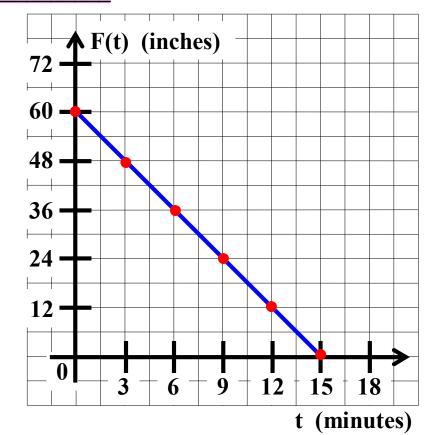
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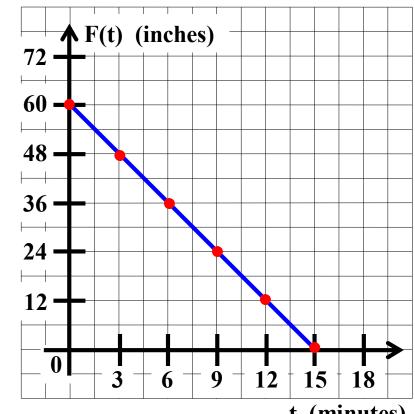
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t (minutes)

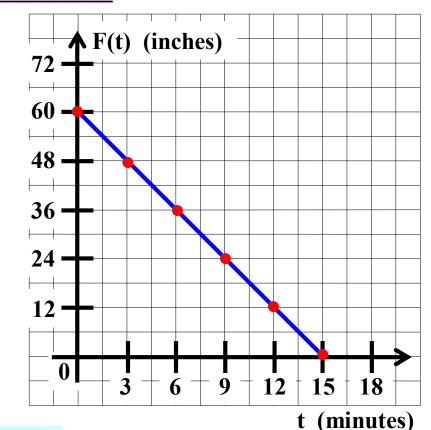
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0	60	stope
3	48	
6	36	
9	24	
12	<b>12</b>	
15	0	

15 minutes

11. Graph function F.



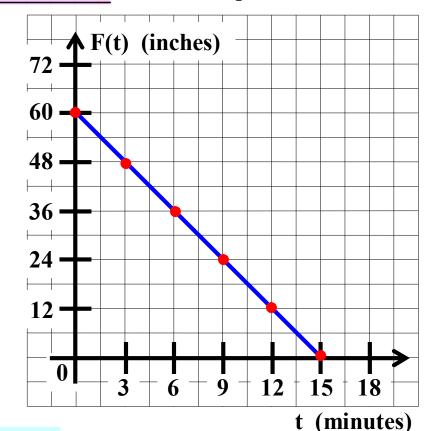
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t	F(t)	slope = $\frac{\text{rise}}{\text{run}}$
0	60	run
3	48	
6	36	
9	24	
<b>12</b>	12	
15	0	

15 minutes

11. Graph function F.



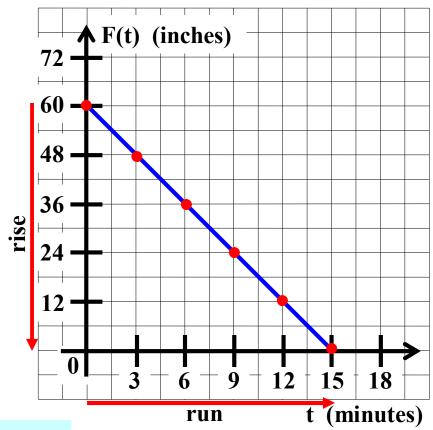
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9	24	
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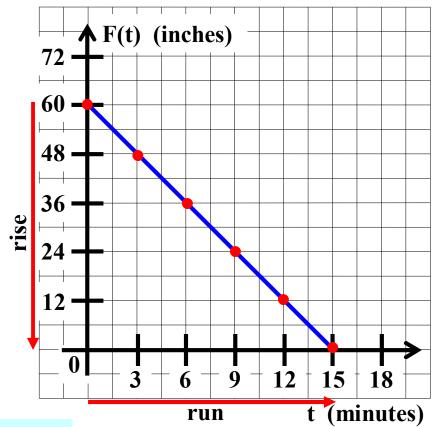
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0	60	slope = $\frac{15}{run} = \frac{15}{15}$
3	48	
6	36	
9	24	
12	12	
15	0	

15 minutes

11. Graph function F.



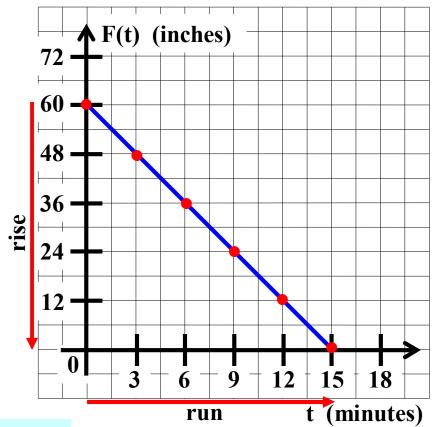
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t	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4$
0	60	run 15
3	48	
6	36	
9	24	
12	12	
15	0	

15 minutes

11. Graph function F.



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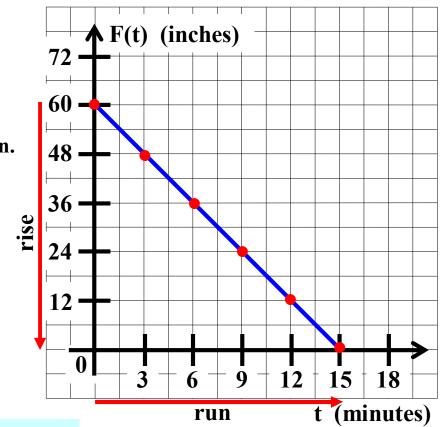
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t	$\mathbf{F}(t)$	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min}$
0	60 48 36 24 12	run 15
3	48	
6	36	
9	24	
12	12	



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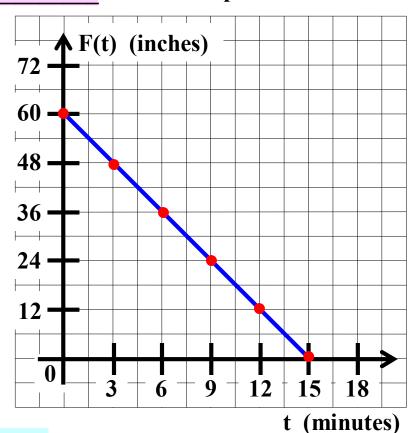
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0	60	run 15
3	48	
6	36	
9	24	
<b>12</b>	12	
15	60 48 36 24 12 0	



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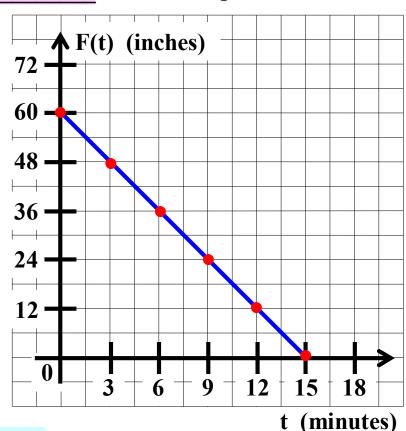
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<u>t</u>	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min.}$
0	60	'y-intercept' =
3 6 9 12	48	y-intercept –
6	48 36 24	
9	24	
12	12	
15	0	



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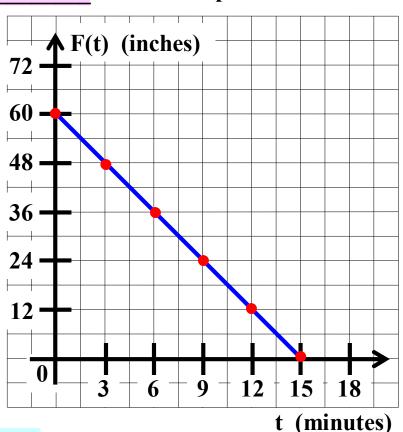
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t	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min}$
0	60 48 36 24 12	'y-intercept' = 60
3	48	y-intercept 00
6	36	
9	24	
<b>12</b>	12	
15	0	



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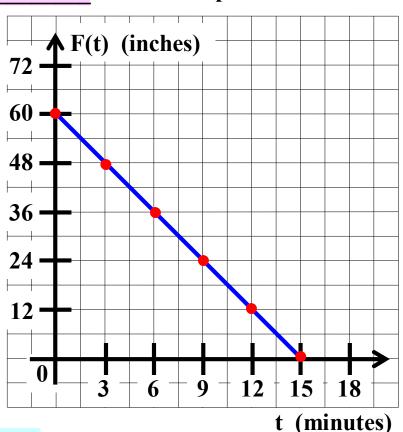
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0	60 48 36 24 12 0	'y-intercept' = 60
3	48	y = mx + b
6	36	y ma b
9	24	
<b>12</b>	12	
15	0	



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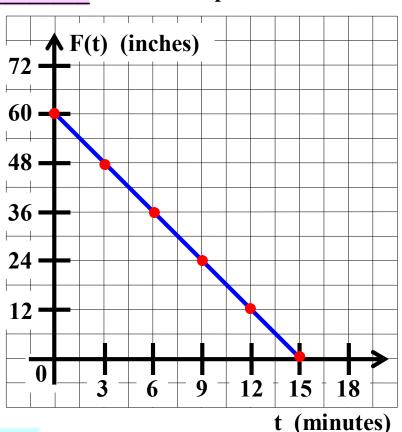
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0	60	'y-intercept' = 60
<b>3 6</b>	60 48 36 24 12	y = mx + b
9	24	$\mathbf{y} =$
<b>12</b>	12	
15	0	



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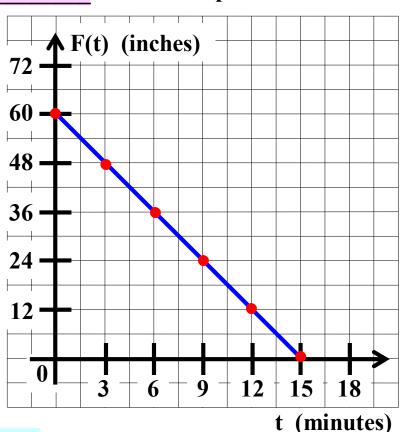
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---------------	------------------------------------------------------------------------------------------------------------------------------



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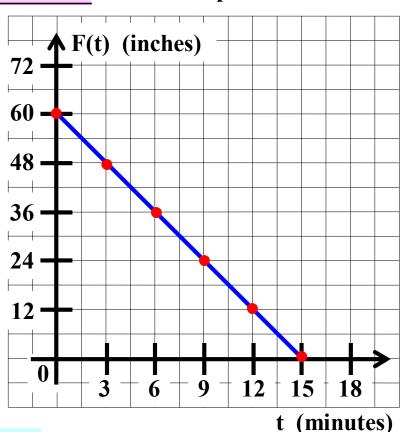
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t	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min.}$
0	60 48 36 24 12	'y-intercept' = 60
3	48	y = mx + b
6	36	y = -4x + 60
9	24	y — -4x + 00
12	12	
<b>15</b>	0	

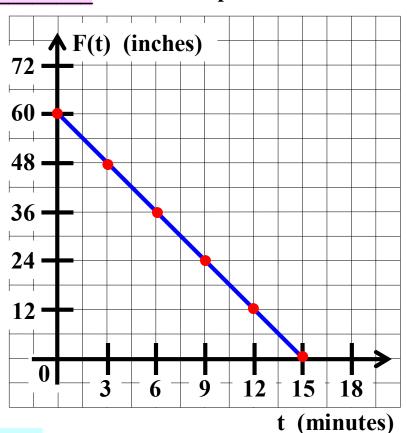


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0	60 48 36 24 12	'y-intercept' = 60
6	36	y = mx + b $y = -4x + 60$
9 12	24   12	y HA I OU
15	0	



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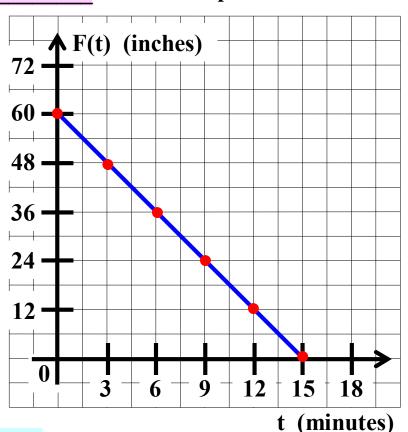
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0	60	'y-intercept' = 60
3	60 48 36 24 12 0	y = mx + b
6	36	y = 11x + 6 $y = -4x + 60$
9	24	y = -4x + 60
<b>12</b>	12	
15	0	



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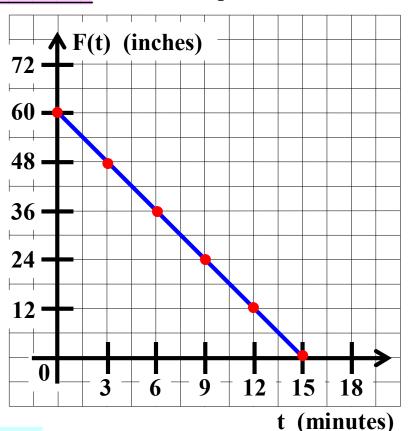
9. How long will it take to empty the tank?

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11. Graph function F.

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	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min}$
0	60	
3	60 48 36 24 12 0	'y-intercept' = 60
6	36	y = mx + b
9	24	y = -4x + 60
12	12	
15	0	



12. Write an equation giving F(t) in terms of t. F(t) = -4t

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in minutes). Let F(t) represent the **depth of the water** in the tank (in **inches**).

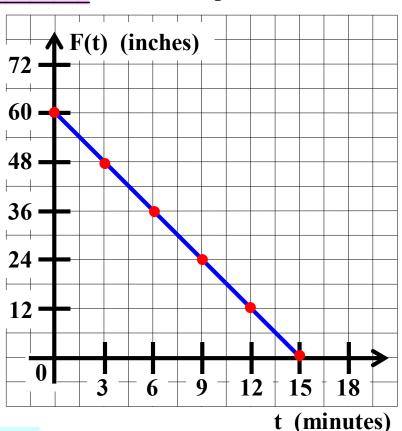
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0	60	'y-intercept' = 60
3	60 48 36 24 12 0	y = mx + b
6	36	
9	24	y = -4x + 60
12	12	
<b>15</b>	0	



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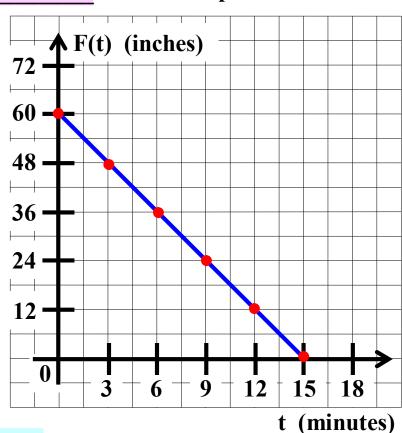
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15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

<u>t</u>	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min.}$
0	60 48 36 24 12	'y-intercept' = 60
<b>3 6</b>	48   36	y = mx + b
9	24	y = -4x + 60
<b>12</b>	12	
15	0	



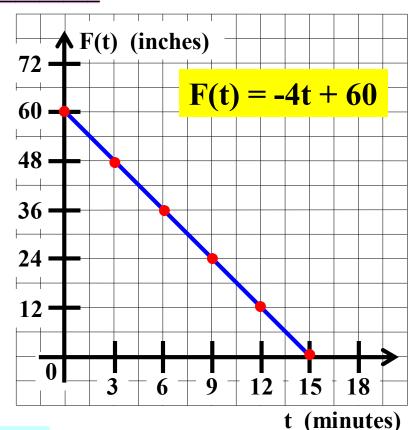
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- 15 minutes
- 11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)	slope = $\frac{\text{rise}}{\text{run}} = \frac{-60}{15} = -4 \text{ in./min}$
0	60 48 36 24 12 0	'y-intercept' = 60
3	48	y = mx + b
6	36	y = -4x + 60
9 12	12	
15	$\begin{bmatrix} 12 \\ 0 \end{bmatrix}$	



12. Write an equation giving F(t) in terms of t. F(t) = -4t + 60

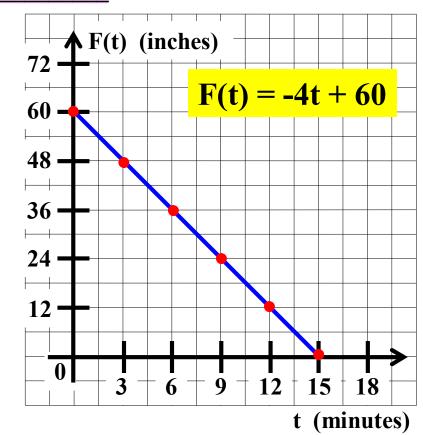
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t	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

#### 15 minutes

#### 11. Graph function F.



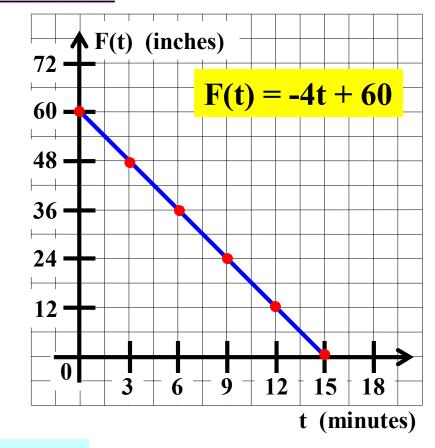
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0	60
3	48
6	36
9	24
12	12
15	0

15 minutes

11. Graph function F.



13. What is the domain of function F?

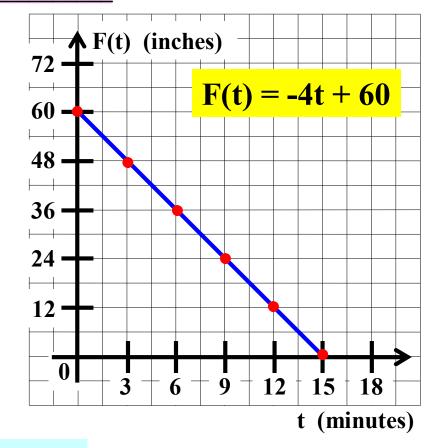
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- 9. How long will it take to empty the tank?
- 10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

t	F(t)
0	60
3	48
6	36
9	24
12	12
15	0

15 minutes

11. Graph function F.



13. What is the domain of function F?

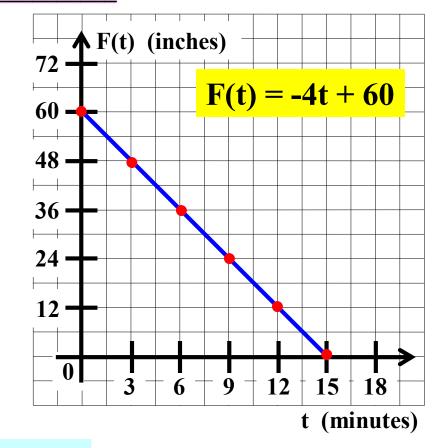
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13. What is the domain of function F?

[0,

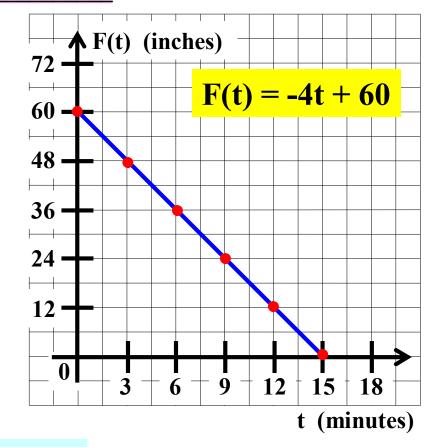
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11. Graph function F.



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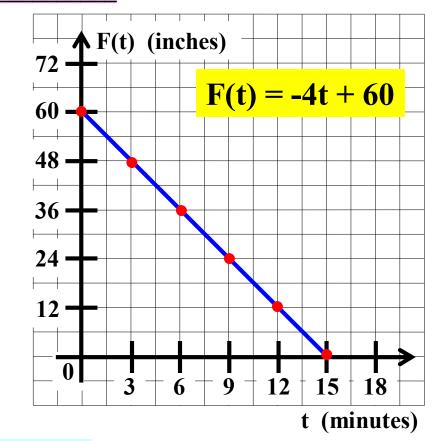
9. How long will it take to empty the tank?

15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty. domain

t	F(t)	
0	60	
3	48	
6	36	
9	24	
<b>12</b>	12	
15	0	



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9. How long will it take to empty the tank?

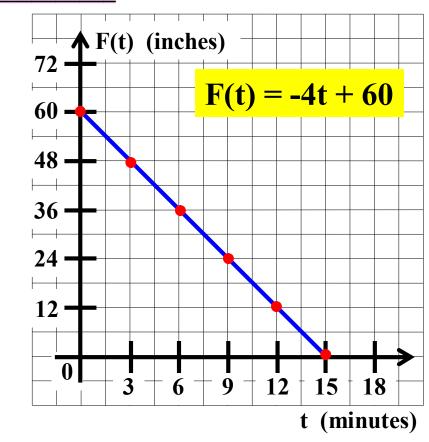
15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

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domain
[ 0 , 15 ]



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9. How long will it take to empty the tank? 15 minutes

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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty. domain

t	F(t)
0	60
3	48
6	36
9	24
12	12
4 =	lacksquare

15

[0,15]

72	F(t	<i>)</i> (1)							_
60 -				<b>F</b> (1	t) =	= <b>_</b> ,	4t -	<mark>⊦ 60</mark>	1
48 -									
36 -	_								
24 –	_								
12 -									
		3 +	6 -	9	<u> </u>	2	15	18	

14. What is the range of function F?

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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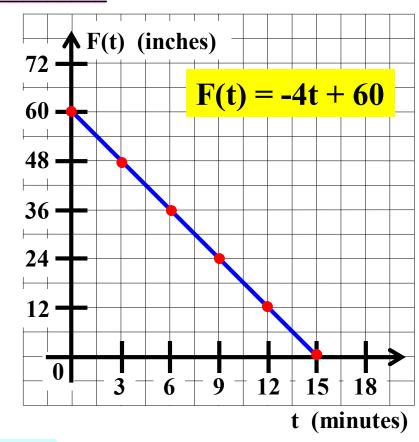
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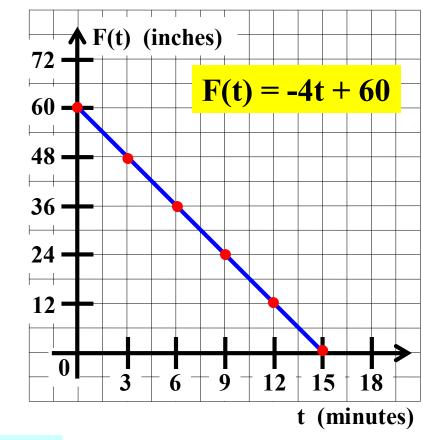
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15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

			uomam		
t	F(t)	_	[0,15]		
Λ	(0				



14. What is the range of function F?

[0,

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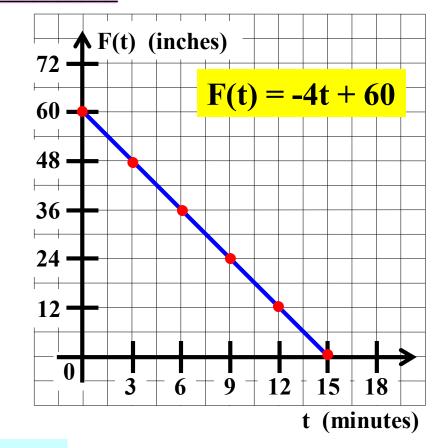
15 minutes

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6	36
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[0,15]



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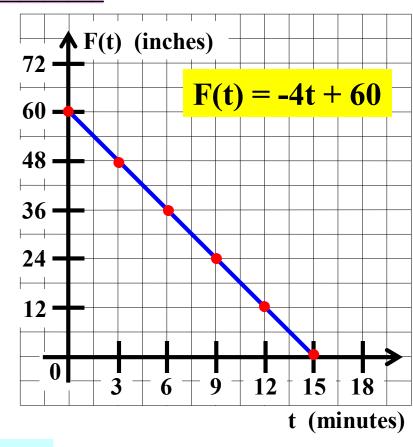
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6	36
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12	12
15	0

[0,15]
range
[0,60]



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**36** 

24

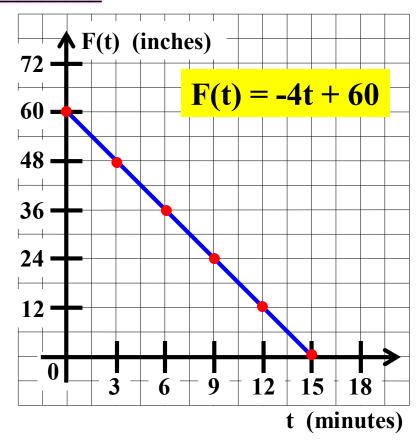
**12** 

0

9

**15** 

t | F(t) [0,15] 0 60 range 3 48 [0,60]



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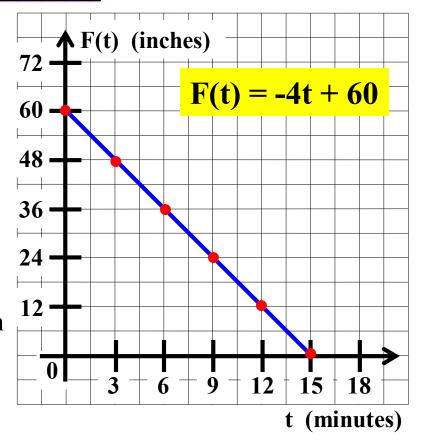
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15

			domain	
t	F(t)		[0,15]	
0	60		range	
3 6	60 48 36 24		[0,60]	
6	36	15 Evolu	o4o E(0)	
9	24	15. Evalu	` ,	. •
9 12	12		s F(9) repre he problem?	



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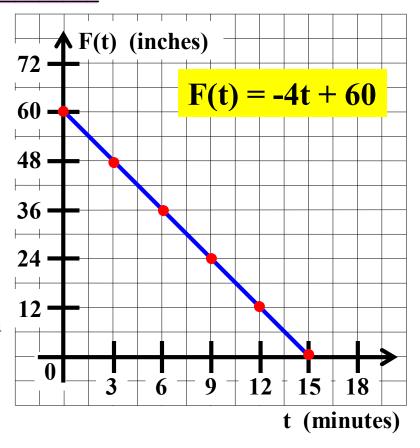
11. Graph function F.

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**15** 

0

domain [0, 15] $\mathbf{F}(\mathbf{t})$ range **60** 0 [0,60]3 48 6 **36** 15. Evaluate F(9). 9 **24** What does F(9) represent in **12** 12 terms of the problem?



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36

**24** 

**12** 

9

**15** 

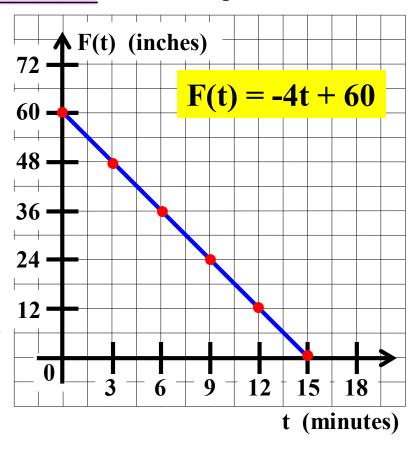
domain

t	$\mathbf{F}(t)$	[0,15]
0	60	range
3	48	[0,60]

15. Evaluate F(9).

What does F(9) represent in terms of the problem?

$$\mathbf{F(9)} =$$



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0	60	range
3	48	[0,60]

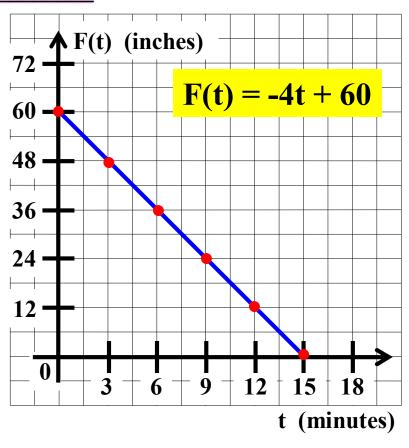
**36** 24

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**12 15** 

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t	F(t)	[0,15]
0	60	range
3	48	[0,60]

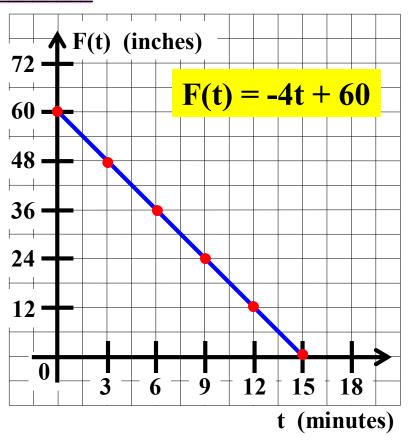
 $\begin{array}{c|c}
6 & 36 \\
 \longrightarrow 9 & 24 \\
12 & 12
\end{array}$ 

**15** 

**15.** Evaluate F(9).

What does F(9) represent in terms of the problem?

$$F(9) = 24$$



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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

**36** 

**24** 

**12** 

0

**15** 

domain

 t
 F(t)
 [0,15]

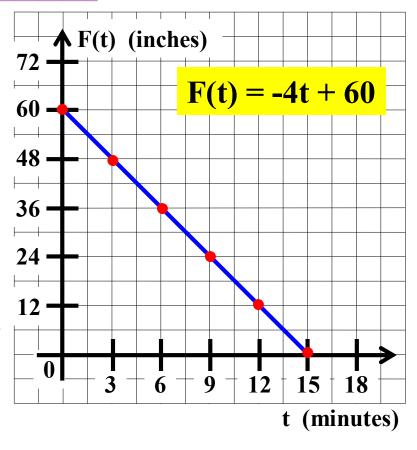
 0
 60
 range

 3
 48
 [0,60]

**15.** Evaluate F(9).

What does F(9) represent in terms of the problem?

F(9) = 24 inches



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**60** 

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**36** 

24

**12** 

0

0

3

6

9

**12** 

**15** 

domain

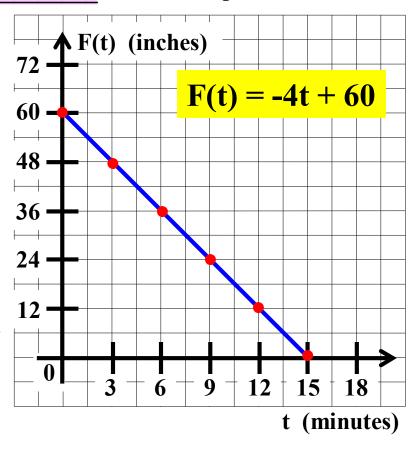
 $\mathbf{F}(\mathbf{t})$ range

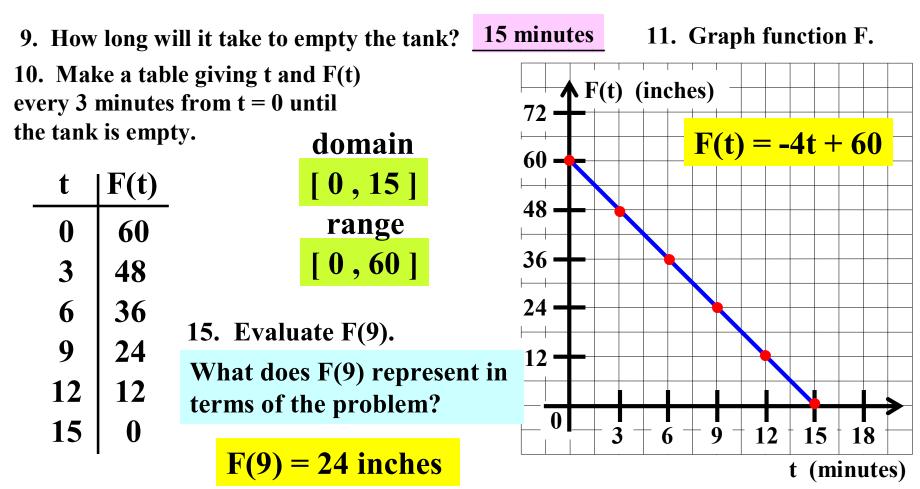
[0, 15][0,60]

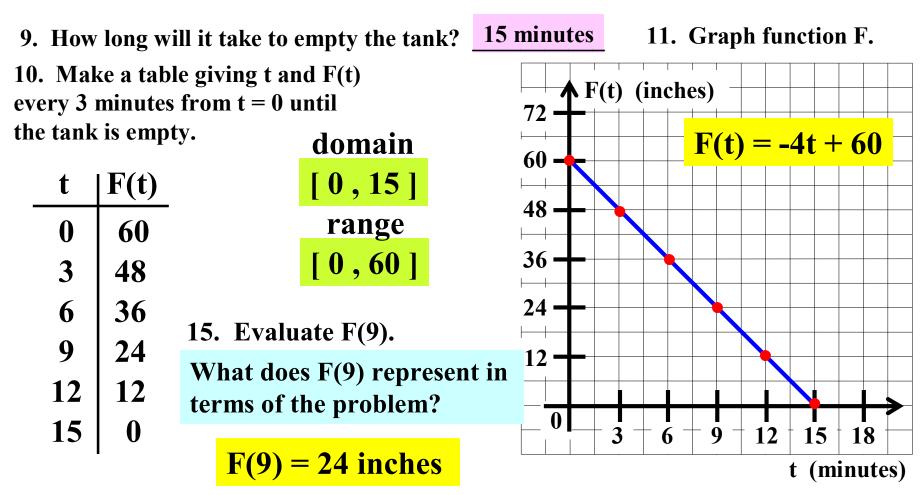
15. Evaluate F(9).

What does F(9) represent in terms of the problem?

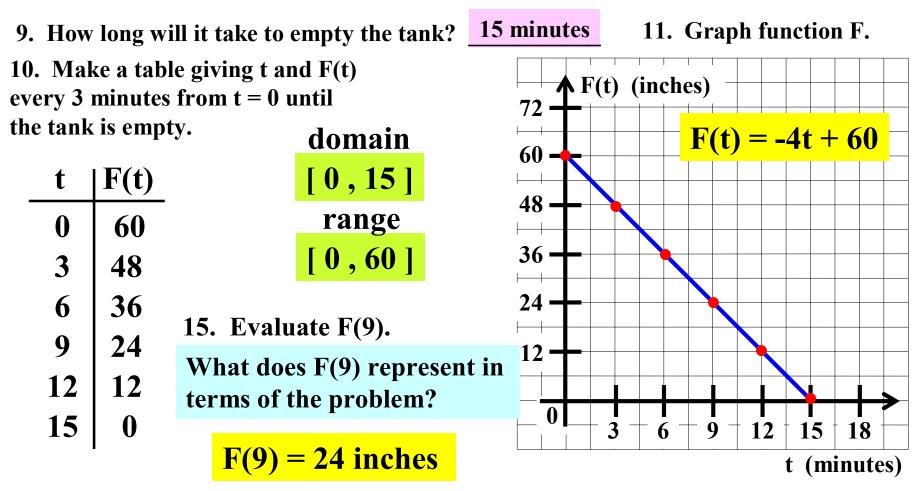
F(9) = 24 inches



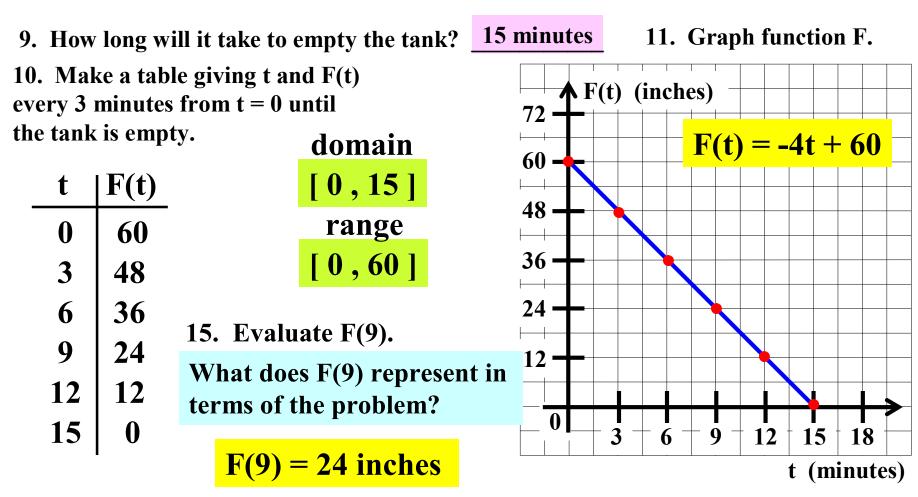




F(9) represents

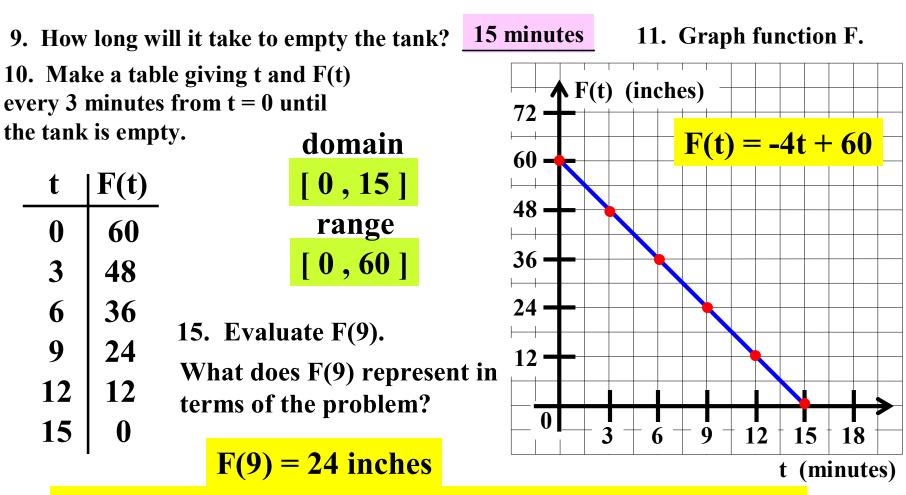


F(9) represents the depth of the water



F(9) represents the depth of the water after 9 minutes.

A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).



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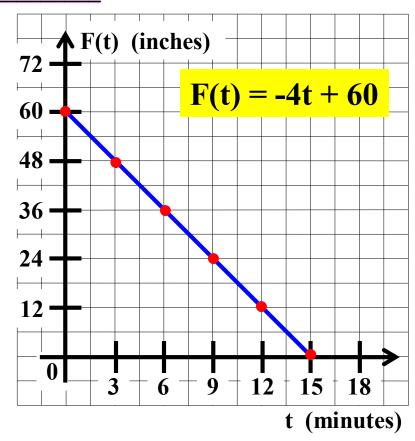
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15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

		domai
t	F(t)	[0,15
0	60	range
3	48	[0,60
6	36	
Λ		



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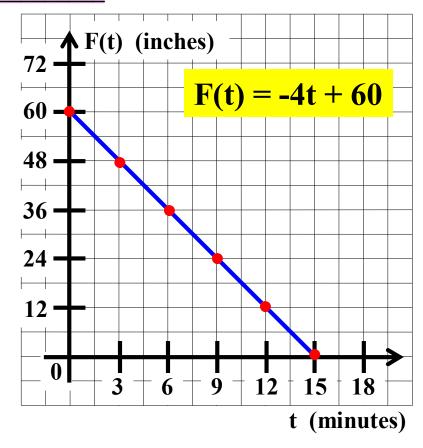
15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

domain domain

t	F(t)	[0,15]	
0	60	range	
3	48	[0,60]	
6	36	16. If $F(t) = 20$ , then find	d
9	24	the value of t.	
<b>12</b>	12	What does this value of	t
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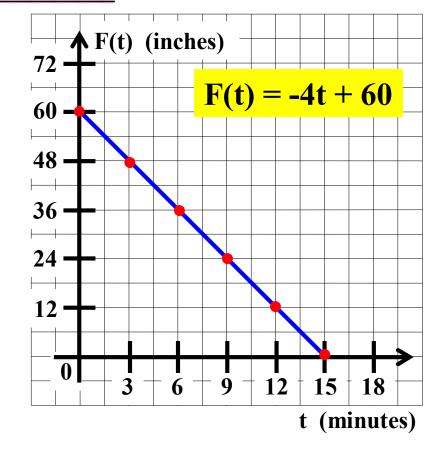
15 minutes

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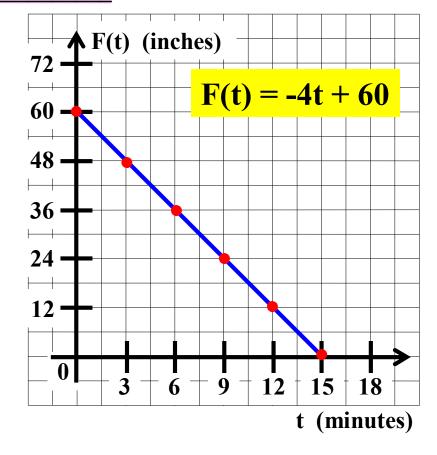
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 $\mathbf{F(t)}=\mathbf{20}$ 



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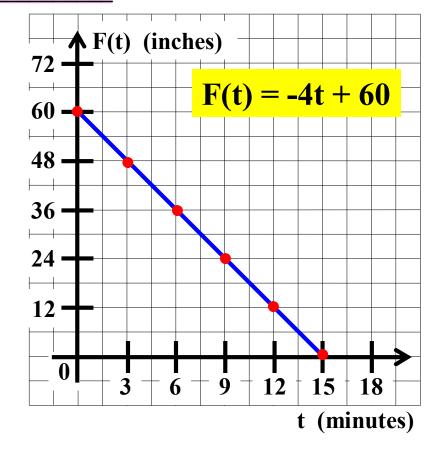
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t	F(t)	[0,15]
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12	12	What does this value of t
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-4t + 60



A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

9. How long will it take to empty the tank?

15 minutes

11. Graph function F.

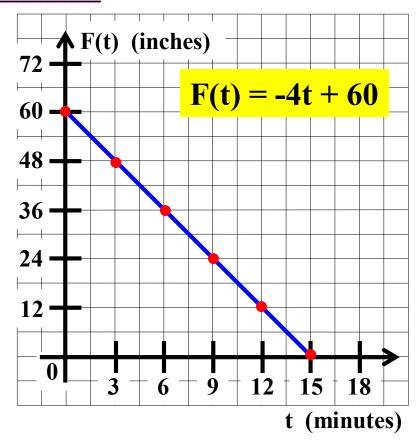
10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty. domain

[0, 15] $\mathbf{F}(\mathbf{t})$ range **60** 0 [0,60]3 48 6 **36** 16. If F(t) = 20, then find 9 **24** the value of t. **12 12** What does this value of t represent in terms of the **15** 

$$F(t) = 20$$

$$-4t + 60 = 20$$

problem?



A rectangular water tank is 6 feet long, 4 feet wide, and 5 feet deep. The tank is full initially and water is drained out of the tank at 8 cubic feet per minute until the tank is empty. Let t represent the time that water has been draining out of the tank (in **minutes**). Let F(t) represent the **depth of the water** in the tank (in **inches**).

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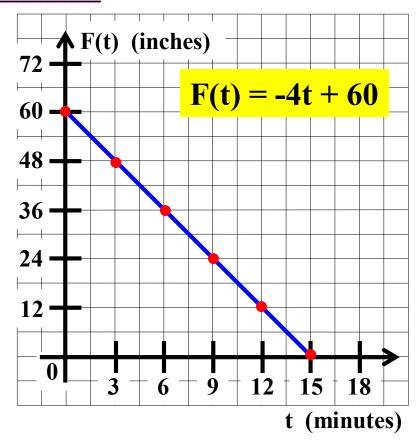
15 minutes

11. Graph function F.

10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty. domain

t	F(t)	[0,15]
0	60	range
3	48	[0,60]
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15	0	represent in terms of the problem?

$$F(t) = 20$$
 $-4t + 60 = 20$ 



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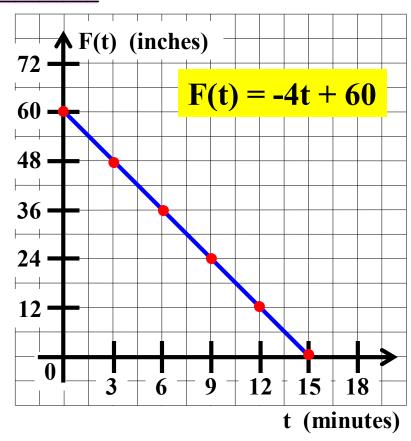
15 minutes

11. Graph function F.

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		domam
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$$F(t) = 20$$
  
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9. How long will it take to empty the tank?

15 minutes

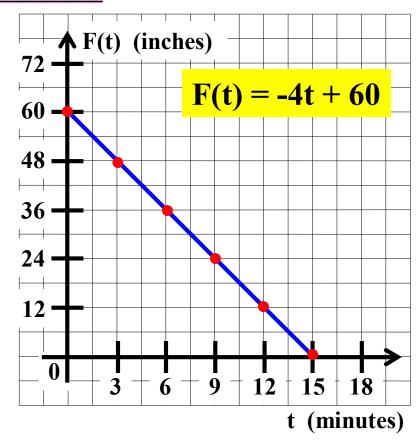
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10. Make a table giving t and F(t) every 3 minutes from t = 0 until the tank is empty.

domain

t	F(t)	[0,15]
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<b>3 6</b>	48	[0,60]
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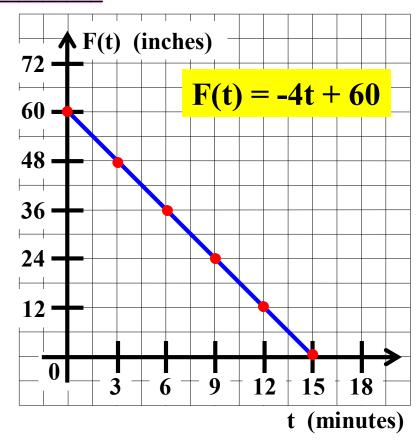
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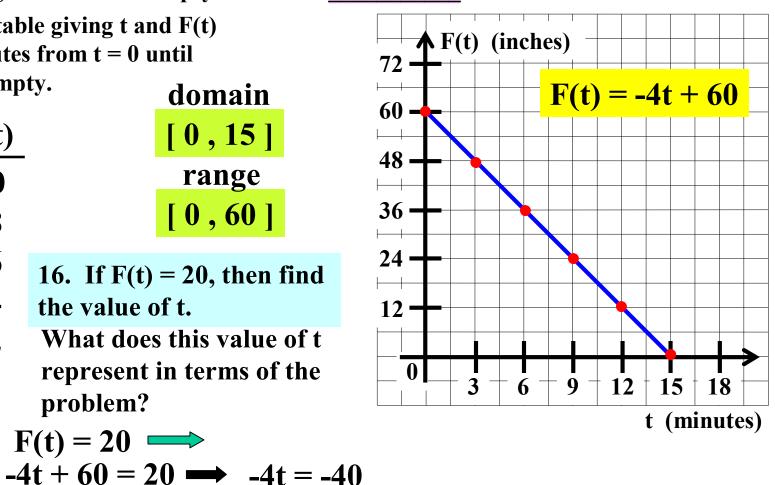
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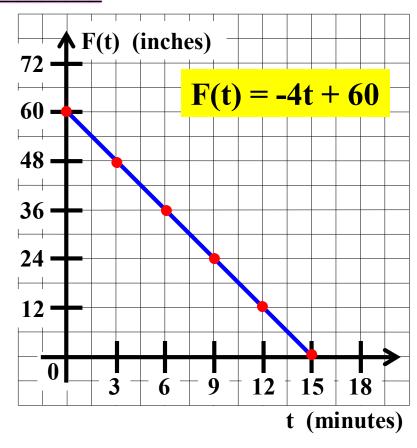
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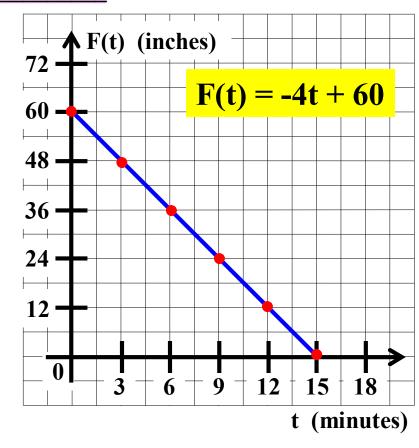
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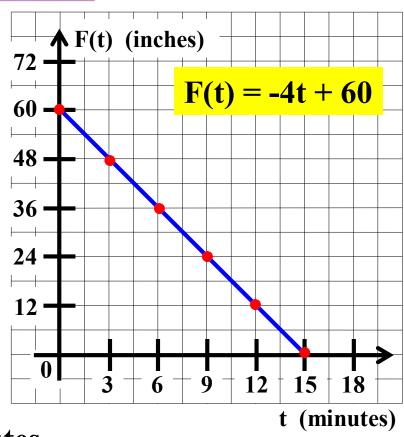
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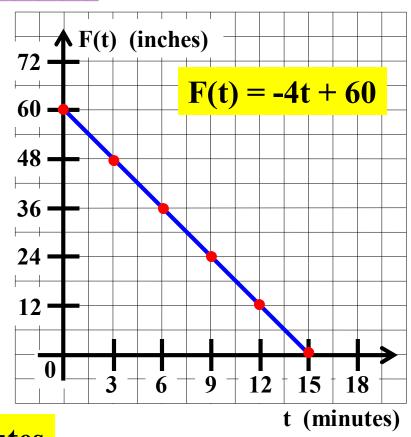
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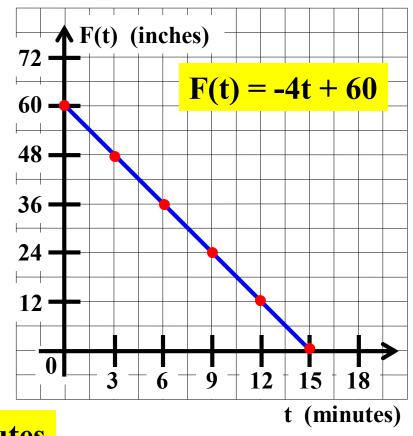
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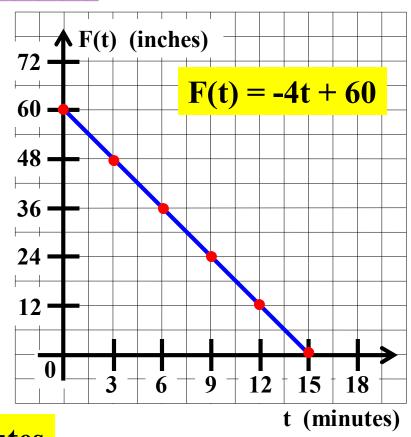
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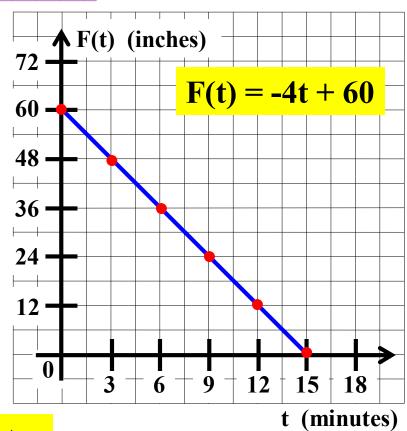
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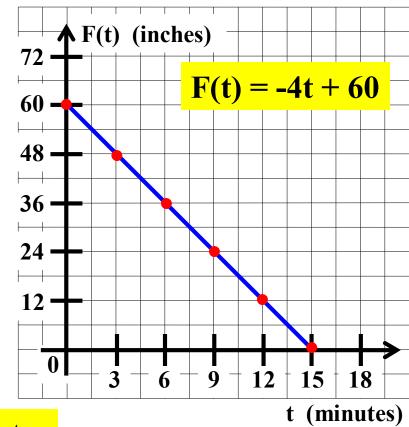
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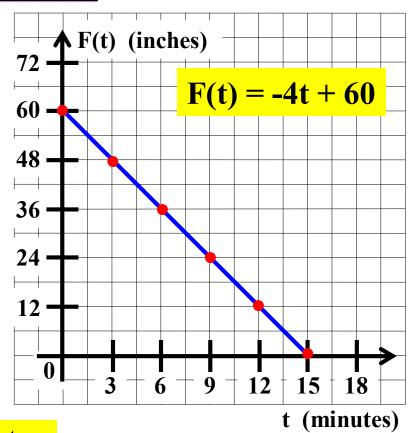
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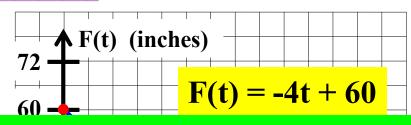
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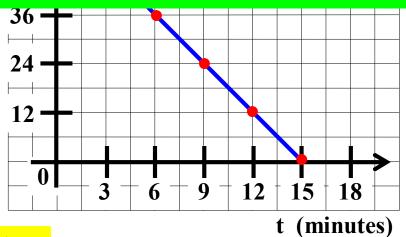
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# Good luck on your homework!!!

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