Algebra II Lesson #5 Unit 2 Class Worksheet #5 For Worksheets #6 & #7

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

1. Donna and Mike receive a total of \$275. The amount received by Donna is \$10 more than four times the amount received by Mike. How much did each person receive?

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Mike:

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Donna: x x +

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Donna: $\mathbf{x} = \mathbf{x} + \mathbf{y}$

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Donna: $\mathbf{x} \qquad \mathbf{x} + \mathbf{y} =$

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Donna: \mathbf{x} x + y = 275

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Mike: y x

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Mike: $\mathbf{y} = \mathbf{x} = \mathbf{x}$

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Donna: \mathbf{x} $\mathbf{x} + \mathbf{y} = 275$

Mike: y = 4y

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Donna: \mathbf{x} x + y = 275

Mike: $\mathbf{y} = 4\mathbf{y} + \mathbf{y}$

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Donna: \mathbf{x} $\mathbf{x} + \mathbf{y} = 275$

Mike: y = 4y + 10

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(4y + 10)

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Donna: **x** x + y = 275Mike: **y** x = 4y + 10

(4y + 10) +

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(4y + 10) + y

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(4y + 10) + y = 275

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1. Donna and Mike receive a total of \$275. The amount received by Donna is \$10 more than four times the amount received by Mike. How much did each person receive?

Donna: x = 4y + 10(4y + 10) + y = 275

5y

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5y +

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1. Donna and Mike receive a total of \$275. The amount received by Donna is \$10 more than four times the amount received by Mike. How much did each person receive?

Donna: x = 4y + 10Mike: y = 275(4y + 10) + y = 2755y + 10

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Donna: x = 4y + 10(4y + 10) + y = 275

5y + 10 =

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Donna: x = 4y + 10(4y + 10) + y = 275

$$5y + 10 = 275$$

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Donna: x = 4y + 10Mike: y = 275 (4y + 10) + y = 275 5y + 10 = 2755y

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Donna: \mathbf{x} x + y = 275Mike: \mathbf{y} x = 4y + 10(4y + 10) + y = 2755y + 10 = 275

5y =

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Donna: \mathbf{x} x + y = 275Mike: \mathbf{y} x = 4y + 10(4y + 10) + y = 2755y + 10 = 275

5y = 265

Solve each of the problems algebraically. Use a system of 2 equations with 2 variables.

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Donna: x = x + y = 275Mike: y = x = 4y + 10 (4y + 10) + y = 275 5y + 10 = 275 5y = 265y

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y =

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Donna: \mathbf{x} x + y = 275Mike: \mathbf{y} x = 4y + 10 (4y + 10) + y = 275 5y + 10 = 2755y = 265

y = 53

Solve each of the problems algebraically. Use a system of 2 equations with 2 variables.

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Donna: x = x + y = 275Mike: y = x = 4y + 10 (4y + 10) + y = 275 = x = 4y + 10 5y + 10 = 2755y = 265

y = 53

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Donna: \mathbf{x} x + y = 275Mike: \mathbf{y} x = 4y + 10 (4y + 10) + y = 275 x = 4y + 10 5y + 10 = 275 x =5y = 265

y = 53

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Donna: \mathbf{x} x + y = 275Mike: \mathbf{y} x = 4y + 10 (4y + 10) + y = 275 x = 4y + 10 5y + 10 = 275 x = 212 + 105y = 265

y = 53

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Donna: \mathbf{x} $\mathbf{x} + \mathbf{y} = 275$ Mike: \mathbf{y} $\mathbf{x} = 4\mathbf{y} + 10$ $(4\mathbf{y} + 10) + \mathbf{y} = 275$ $\mathbf{x} = 4\mathbf{y} + 10$ $5\mathbf{y} + 10 = 275$ $\mathbf{x} = 212 + 10$

$$5y = 265$$
 x =
y = 53

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Donna: \mathbf{x} $\mathbf{x} + \mathbf{y} = 275$ Mike: \mathbf{y} $\mathbf{x} = 4\mathbf{y} + 10$ $(4\mathbf{y} + 10) + \mathbf{y} = 275$ $\mathbf{x} = 4\mathbf{y} + 10$ $5\mathbf{v} + 10 = 275$ $\mathbf{x} = 212 + 10$

$$5y + 10 = 275$$
 $x = 212 + 10$
 $5y = 265$ $x = 232$
 $y = 53$

Solve each of the problems algebraically. Use a system of 2 equations with 2 variables.

1. Donna and Mike receive a total of \$275. The amount received by Donna is \$10 more than four times the amount received by Mike. How much did each person receive?

Donna: \mathbf{x} x + y = 275 Donna received \$232, Mike: \mathbf{y} x = 4y + 10 (4y + 10) + y = 275 x = 4y + 10 5y + 10 = 275 x = 212 + 10 5y = 265 x = 232y = 53

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1. Donna and Mike receive a total of \$275. The amount received by Donna is \$10 more than four times the amount received by Mike. How much did each person receive?

 Donna: x x + y = 275

 Mike: y x = 4y + 10

Donna received \$232, and Mike received \$53.

$$\begin{array}{ll} (4y+10)+y=275 & x=4y+10 \\ 5y+10=275 & x=212+10 \\ 5y=265 & x=232 \\ y=53 \end{array}$$

Use a system of 2 equations with 2 variables.

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Donna received \$232, and Mike received \$53.

$$4y + 10) + y = 275 \qquad x = 4y + 10$$

$$5y + 10 = 275 \qquad x = 212 + 10$$

$$5y = 265 \qquad x = 232$$

$$y = 53$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

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Use a system of 2 equations with 2 variables.

interest	amount
rate	invested

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

interest	amount
rate	invested
4%	
6.5%	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

interest	amount
rate	invested
4%	X
6.5%	

Use a system of 2 equations with 2 variables.

interest	amount
rate	invested
4%	X
6.5%	У

Use a system of 2 equations with 2 variables.

interest	amount
rate	invested
4%	X
6.5%	У
totals:	400

Use a system of 2 equations with 2 variables.

interest rate	amount invested	
4%	X	
6.5%	У	
totals:	400	

interest rate	amount invested	
4%	X	
6.5%	У	
totals:	400	

interest rate	amount invested	Х
4%	X	
6.5%	У	
totals:	400	

interest rate	amount invested	x + y
4%	X	
6.5%	У	
totals:	400	

interest rate	amount invested	$\mathbf{x} + \mathbf{y} = \mathbf{z}$
4%	X	
6.5%	У	
totals:	400	

Use a system of 2 equations with 2 variables.

	on rate.	100
	amount invested	 x + y = 400
4%	X	
6.5%	У	
totals:	400	

Use a system of 2 equations with 2 variables.

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest rate	amount invested	interest earned	
4%	X	.04x	
6.5%	У		
totals:	400		

x + y = 400

Use a system of 2 equations with 2 variables.

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	

x + y = 400

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400

interest rate	amount invested		x + y = .04x
4%	X	.04x	.07A
6.5%	У	.065y	
totals:	400	24	

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interest rate	amount invested	interest earned	x + .04x
4%	X	.04x	.04A
6.5%	У	.065y	
totals:	400	24	

x + y = 40004x +

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4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y

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4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y =

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

$$x + y = 400$$

.04x + .065y = 24

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24

Multiply both sides by 1,000.

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x

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4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x +

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
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4%	X	.04x
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totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000-40x

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000-40x -

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y =

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y = -16000

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest	X
rate	invested	earned	.04
4%	X	.04x	.0
6.5%	У	.065y	40
totals:	400	24	-40

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y = -16000

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000-40x - 40y = -16000

'Add' the equations.

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4%	X	.04x
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x + y = 400.04x + .065y = 24 40x + 65y = 24000-40x - 40y = -16000 25y 'Add' the equations.

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rate	invested	earned
4%	X	.04x
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'Add' the equations.

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y = -16000 25y = 8000

'Add' the equations.

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

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rate	invested	earned
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Solve for y.

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4%	X	.04x
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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

x + y = 400.04x + .065y = 24 40x + 65y = 24000 -40x - 40y = -16000 25y = 8000 y = 320

Solve for y.

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

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rate	invested	earned
4%	X	.04x
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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

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rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

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interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate? interest amount interest x + y = 400

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

.04x + .065y = 24 40x + 65y = 24000 -40x - 40y = -16000 25y = 8000 y = 320x = 80

He invested \$320 at 6.5%

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

and \$80 at 4%.

He invested \$320 at 6.5%

2. Peter invests \$400, part at 4% per year and the rest at 6.5% per year. If the total interest for one year was \$24, then how much did he invest at each rate?

interest	amount	interest
rate	invested	earned
4%	X	.04x
6.5%	У	.065y
totals:	400	24

He invested \$320 at 6.5% and \$80 at 4%.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

number of coins dimes:

nickels:

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

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Solve each of the problems algebraically.

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number value of of coins the coins dimes: X nickels: Y

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

number	value of
of coins	the coins
dimes: x	10x ¢
nickels: y	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

number	value of
of coins	the coins
dimes: x	10x ¢
nickels: y	5y ¢

number	value of
of coins	the coins
dimes: x	10x ¢
nickels: y	5y ¢

	value of the coins	10x
dimes: x	10x ¢	
nickels: y	5y ¢	

	er value of ns the coins	10x +
dimes: x	10x ¢	
nickels: y	5y ¢	

n	number	value of	10x + 5y
0	of coins	the coins	10X + Jy
dimes:	X	10x ¢	
nickels:	У	5y ¢	

ımber	value of	10x + 5y =
coins	the coins	10X + Jy
X	10x ¢	
У	5y ¢	
	`coins X	- · ·

number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	
nickels: y	5y ¢	

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

number
of coinsvalue of
the coins10x + 5y = 1000 (cents)dimes:x $10x \notin$ nickels:y $5y \notin$

Algebra II Class Worksheet #5 Unit 2 Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	value of the coins	10x + 5y = 1000
dimes: x	10x ¢	
nickels: y	5y ¢	

number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	
nickels: y	5y ¢	

	value of the coins	10x + 5y = 1000
dimes: x	1.0	X
nickels: y	5y ¢	

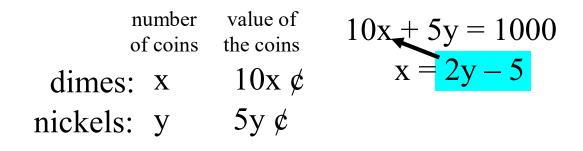
number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	$\mathbf{X} =$
nickels: y	5y ¢	

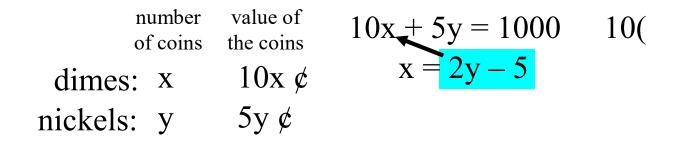
number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y}$
nickels: y	5y ¢	

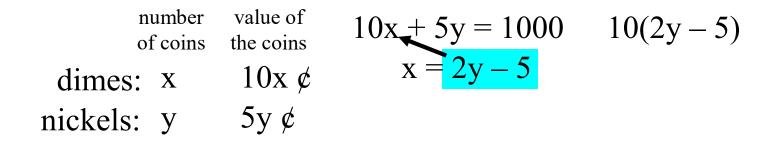
number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - \mathbf{z}$
nickels: y	5y ¢	

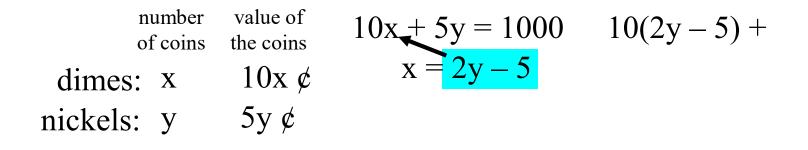
number	value of	10x + 5y = 1000
of coins	the coins	10x + 3y = 1000
dimes: x	10x ¢	x = 2y - 5
nickels: y	5y ¢	

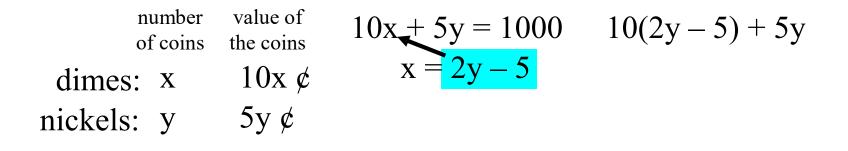
number	value of	10x + 5y = 1000
of coins	the coins	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$
nickels: y	5y ¢	

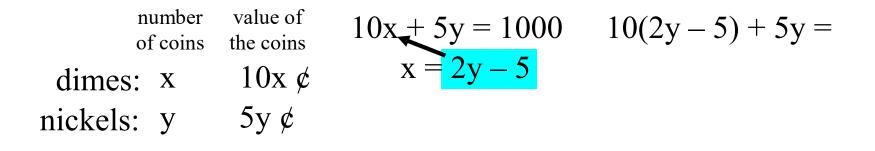


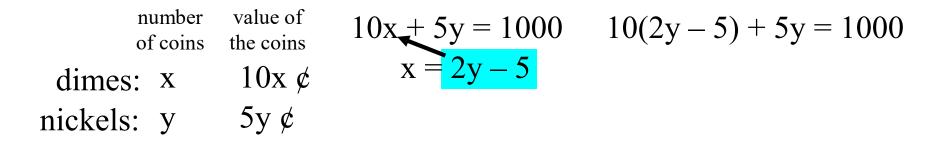












number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	x = 2y - 5	20y
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y –
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	x = 2y - 5	20y - 50
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	x = 2y - 5	20y - 50 +
nickels: y	5y ¢		

	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	x = 2y - 5	20y - 50 + 5y
nickels: y	5y ¢		

	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	10(2y - 5) + 5y - 1000
dimes: x	10x ¢	x = 2y - 5	20y - 50 + 5y =
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	•	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5y 1000	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10x + 5y 1000	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y -

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5y 1000	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5y 1000	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 =

number	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coins	the coins	10X + 5 y 1000	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000

		value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes:		10x ¢	x = 2y - 5	20y - 50 + 5y = 1000
nickels:	У	5y ¢		25y - 50 = 1000
		•		25y

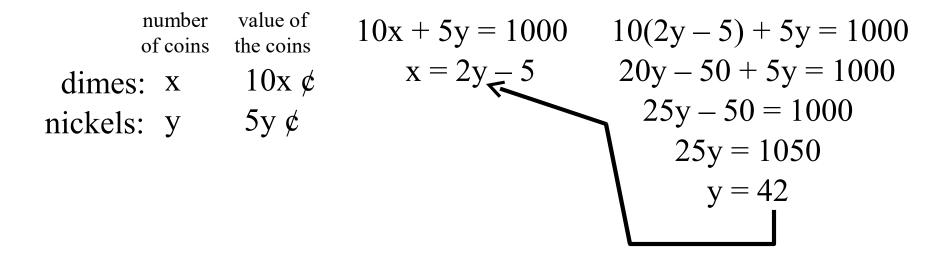
numb		10x + 5y = 1000	10(2y-5) + 5y = 1000
01 CO1	ins the coins	•	
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y			25y - 50 = 1000
	<i>.</i> ,		25y =

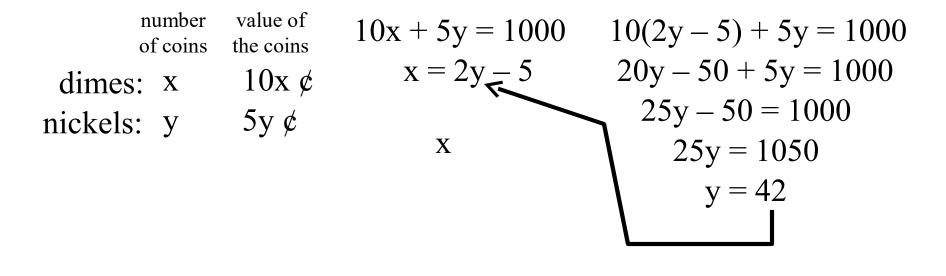
	value of	10x + 5y = 1000	10(2y-5) + 5y = 1000
of coms	the coins		
dimes: x	10x ¢	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
			25y = 1050

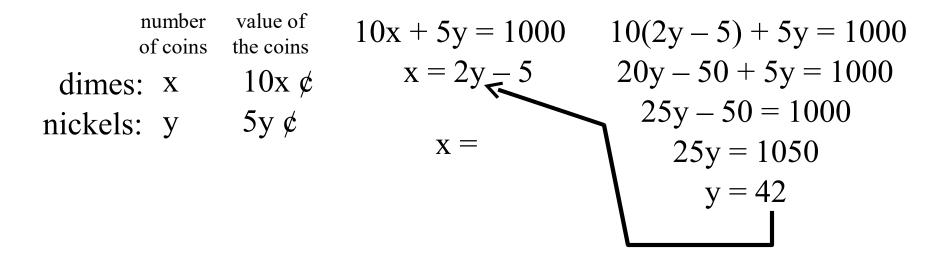
number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	10x c	x = 2y - 5	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
			25y = 1050
			У

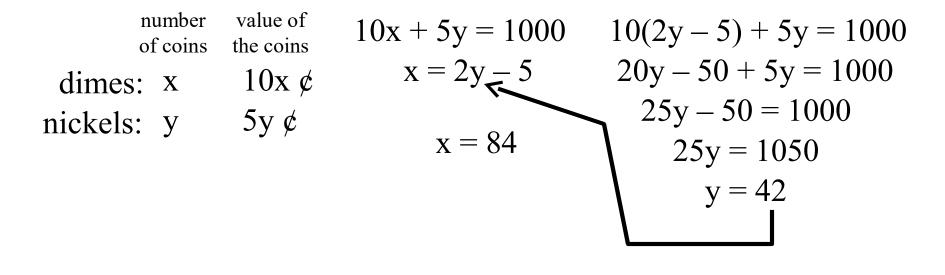
number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	10x c	x = 2y - 5	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
			25y = 1050
			y =

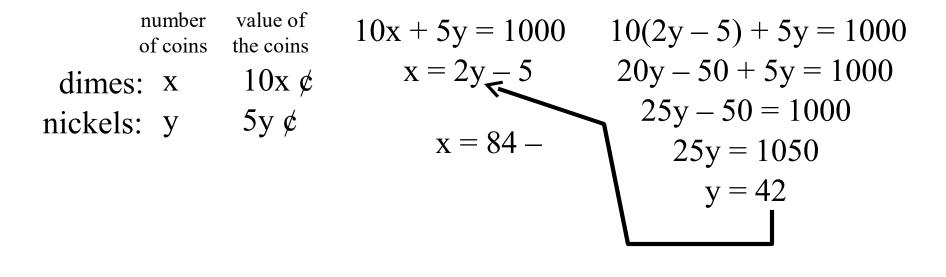
number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	10x c	x = 2y - 5	20y - 50 + 5y = 1000
		•	25y - 50 = 1000
nickels: y	5y ¢		25y = 1050
			y = 42
			J

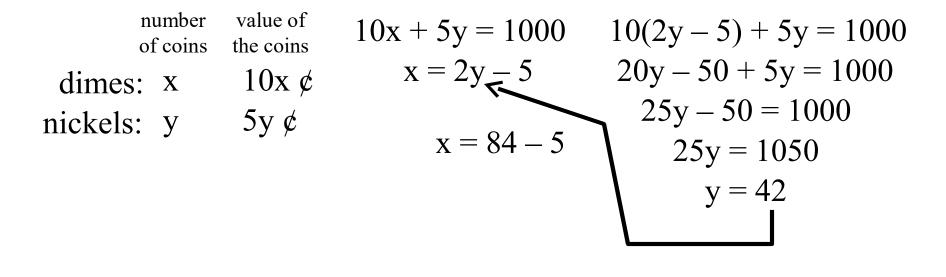












numbe	r value of s the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	$10x \phi$	x = 2y - 5	20y - 50 + 5y = 1000
			25y - 50 = 1000
nickels: y	5y ¢	x = 84 - 5	25y = 1050
			y = 42

number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	$10x \phi$	x = 2y - 5	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
menens. j	-] -	x = 84 - 5	25y = 1050
		X	y = 42

number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	10x c	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
mercens. y		x = 84 - 5	25y = 1050
		$\mathbf{x} =$	y = 42

number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes: x	10x c	$\mathbf{x} = 2\mathbf{y} - 5$	20y - 50 + 5y = 1000
nickels: y	5y ¢		25y - 50 = 1000
mercis. y	ey ç	x = 84 - 5	25y = 1050
		$\mathbf{x} = 79$	y = 42

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

	number of coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes:		10x ¢	x = 2y - 5	20y - 50 + 5y = 1000
nickels:	y	5y ¢		25y - 50 = 1000
	2	0	x = 84 - 5	25y = 1050
			x = 79	y = 42

There are 79 dimes

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

	imber coins	value of the coins	10x + 5y = 1000	10(2y-5) + 5y = 1000
dimes:		10x ¢	x = 2y - 5	20y - 50 + 5y = 1000
nickels:	y	5y ¢		25y - 50 = 1000
	2	5	x = 84 - 5	25y = 1050
			x = 79	y = 42

There are 79 dimes and 42 nickels.

3. A collection of ordinary dimes and nickels is worth a total of \$10. If the number of dimes is five less than twice the number of nickels, then how many coins of each type are in the collection?

number of coins	value of the coins	10x + 5y = 1000	10(2y - 5) + 5y = 1000
dimes: x	10x ¢	x = 2y - 5	20y - 50 + 5y = 1000
nickels: y	5y ¢	04 6	25y - 50 = 1000
		x = 84 - 5	25y = 1050
		x = 79	y = 42

There are 79 dimes and 42 nickels.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number value of pounds per pound

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number value of pounds per pound

Χ

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number value of pounds per pound x 80¢

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number value of pounds per pound x 80¢ y

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

number	value
of pounds	per pound
X	80¢
У	110¢

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number	value	
of pounds	per pound	
X	80¢	
У	110¢	

blend

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

number of pounds	value per pound	
Х	80¢	
У	110¢	

blend 50

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	
	X	80¢	
	У	110¢	
blend	50	89¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	numbe f poun	er value ds per pound
	X	80¢
	У	110¢
blend	50	89¢

Χ

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	numbe f poun		
	X	80¢	
	У	110¢	
blend	50	89¢	

+

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	numbe of poun	er value ds per pound	X
	X	80¢	
	У	110¢	
blend	50	89¢	

У

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

C	numbe of poun	er value ds per pound	\mathbf{X} +
	X	80¢	
	У	110¢	
blend	50	89¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

(numbe of poun		$\mathbf{x} + \mathbf{y} =$
	X	80¢	
	У	110¢	
blend	50	89¢	- -

50

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

		numbe of poun		$\mathbf{x} + \mathbf{y} =$
		X	80¢	
		У	110¢	
-	blend	50	89¢	-

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	iber value unds per pound	x + y = 50
X	80¢	
У	r 110¢	
blend 50) 89¢	

+y = 50

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	X
	X	80¢		
	У	110¢		
blend	50	89¢		-

50

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds X Y	value per pound 80¢ 110¢	total value 80x ¢	x + y =
blen	d 50	89¢		-

Algebra IIClass Worksheet #5Unit 2

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds X	value per pound 80¢	total value 80x ¢	$\mathbf{x} + \mathbf{y} = 50$
	У	110¢	110y ¢	
blend	50	89¢		

Algebra II Class Worksheet #5 Unit 2

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

number of pounds	value per pound	total value	x + y = 50
X	80¢	80x ¢	
У	110¢	110y ¢	
blend 50	89¢	4450¢	

Algebra II Class Worksheet #5 Unit 2

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	
	У	110¢	110y ¢	
blend	50	89¢	4450¢	

Algebra II Class Worksheet #5 Unit 2

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value		$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x	
	У	110¢	110y ¢		
blend	50	89¢	4450¢	-	

Algebra II Class Worksheet #5 Unit 2 Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x +
	У	110¢	110y ¢	
blend	50	89¢	4450¢	_

Algebra IIClass Worksheet #5Unit 2Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y
	У	110¢	110y ¢	
blend	50	89¢	4450¢	

Algebra IIClass Worksheet #5Unit 2Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y =
	У	110¢	110y ¢	
blend	50	89¢	4450¢	_

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	
blend	50	89¢	4450¢	_

	number of pounds X V	value per pound 80¢ 110¢	total value 80x ¢ 110y ¢	x + y = 50 80x + 110y = 4450
blenc	1 50	89¢	4450¢	

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound 80¢	value 80x ¢	80x + 110y = 4450
	X	/	,	
	У	110¢	110y ¢	
blend	50	89¢	4450¢	

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds X	per pound 80¢	value 80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound 80¢	value 80x ¢	80x + 110y = 4450
	X	/	,	
	У	110¢	110y ¢	8x
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound	value	80x + 110y = 4450
	Χ	80¢	80x ¢	
	У	110¢	110y ¢	8x +
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound $80 c$	value 80x ¢	80x + 110y = 4450
	x y	110¢	110y ¢	8x + 11y
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound	value	$90x \pm 110x - 4450$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y =
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound	value	80x + 110y = 4450
	Χ	80¢	80x ¢	30x + 110y - 4430
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	
				Divide both sides by 10.

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	

Algebra II Class Worksheet #5 Unit 2 Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	_

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x –

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	$80x \phi$	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	$80x \phi$	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y =

4. Coffee worth 80 cents per pound is mixed with coffee worth\$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	$80x \phi$	80x + 110y = 4450
	y	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400

4. Coffee worth 80 cents per pound is mixed with coffee worth \$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	$\mathbf{x} + \mathbf{y} = 50$
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400

'Add' the equations.

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3у
				'Add' the equations.

4. Coffee worth 80 cents per pound is mixed with coffee worth \$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number	value	total	$\mathbf{x} + \mathbf{y} = 50$
	of pounds	per pound	value	80x + 110y = 4450
	Χ	80¢	80x ¢	00X + 110y ++50
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y =

'Add' the equations.

4. Coffee worth 80 cents per pound is mixed with coffee worth \$1.10 per pound to produce a 50 pound blend worth 89 cents per pound. How much of each type of coffee is used?

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45

'Add' the equations.

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				У

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y =

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15
				Х

	number of pounds	value per pound	total value	x + y = 50 80x + 110x = 4450
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15
				$\mathbf{X} =$

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15
				x = 35

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
				3y = 45
				y = 15
				x = 35

	number of pounds	value per pound	total value	x + y = 50
	X	80¢	80x ¢	80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
Use	e 35 pou	nds @ 8	0¢ per po	<i>y</i>
				x = 35

	number of pounds X	value per pound 80 c	total value 80x ¢	x + y = 50 80x + 110y = 4450
	У	110¢	110y ¢	8x + 11y = 445
blend	50	89¢	4450¢	-8x - 8y = -400
	-	\cup	0¢ per po 1.10 per	J 15

	number of pounds	value per pound	total value	x + y = 50 80x + 110y = 44	150
	Χ	80¢	80x ¢	00X + 110y	100
_	У	110¢	110y ¢	8x + 11y = 44	15
blend	50	89¢	4450¢	-8x - 8y = -40)()
				3y = 45	
Use 35 pounds (a) 80¢ per pound $y = 1$					
and	l 15 pou	nds @ \$	1.10 per	pound. $x = 35$	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

hot dog

soda

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

cost each hot dog

soda

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} cost \\ each \\ hot \ dog \\ soda \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{r} cost \\ each \\ hot dog \\ soda \\ y \notin \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} cost \\ each \\ hot dog \\ soda \\ y \notin \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x
hot dog	х¢	
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x +
hot dog	x ¢	
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y
hot dog	х¢	
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

_

	cost each	6x + 4y
hot dog	х¢	
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \\ \end{array} \qquad 6x + 4y = 670$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. **Six hot dogs and 4 sodas cost \$6.70.** Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670 (cents)hot dog $x \notin$ soda $y \notin$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670
hot dog	х¢	
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670
hot dog	х¢	
soda	у¢	

Algebra IIClass Worksheet #5Unit 2Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodascost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog x ¢ 5x
soda y ¢

	cost each	6x + 4y = 670
hot dog	х¢	5x +
soda	у¢	

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodascost \$7.60. What is the cost of each item?

 $\begin{array}{cc} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \\ \end{array} \qquad \begin{array}{c} 6x + 4y = 670 \\ 5x + 7y \\ 5x + 7y \\ \end{array}$

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodascost \$7.60. What is the cost of each item?

 $\begin{array}{cc} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \\ \end{array} \qquad \begin{array}{c} 6x + 4y = 670 \\ 5x + 7y = \\ 5x + 7y = \end{array}$

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	·

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760 (cents)
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \end{array} \qquad \begin{array}{c} 6x + 4y = 670 \\ 5x + 7y = 760 \\ 5x + 7y = 760 \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \end{array} \qquad \begin{array}{c} 6x + 4y = 670 \\ 5x + 7y = 760 \\ \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} \cos t \\ each \\ hot \ dog \\ soda \\ y \ \not c \\ \end{array} \begin{array}{c} 6x + 4y = 670 \\ 5x + 7y = 760 \\ 42x \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{c} \cos t \\ each \\ hot \ dog \\ soda \\ y \ control \\ y \ control \\ x \ c$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	
		42x + 28y

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	42x + 28y =

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	42x + 28y = 4690

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670
hot dog	х¢	5x + 7y = 760
soda	у¢	42x + 28x - 4600
		42x + 28y = 4690

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670 6x + 4y = 670 5x + 7y = 760 300 $y \neq$ 42x + 28y = 4690 -20x

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670 6x + 4y = 670 5x + 7y = 760 300 y c 42x + 28y = 4690 -20x -

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670 6x + 4y = 670 5x + 7y = 760 300 y x y 42x + 28y = 4690 -20x - 28y

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670 6x + 4y = 670 5x + 7y = 760 300 y x y 42x + 28y = 4690 -20x - 28y = 4690

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{ccc}
cost \\
each \\
hot dog \\
soda \\
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Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog $x \notin$ 5x + 7y = 760soda $y \notin$ 42x + 28y = 4690 -20x - 28y = -3040

'Add' the equations.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x'Add' the equations.

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6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x ='Add' the equations.

Solve each of the problems algebraically.

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5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog x ¢ soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x = 1650'Add' the equations.

Solve each of the problems algebraically.

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6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x = 1650x

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

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6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x = 1650 x =

Solve each of the problems algebraically.

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6x + 4y = 670hot dog x ¢ 5x + 7y = 760soda y ¢ 42x + 28y = 4690 -20x - 28y = -3040 22x = 1650 x = 75

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{ccc} \cos t \\ each \\ hot \ dog & x \ \not c \\ soda & y \ \not c \\ \end{array} \begin{array}{ccc} 5x + 4y = 670 \\ 5x + 7y = 760 \\ 42x + 28y = 4690 \\ -20x - 28y = -3040 \\ 22x = 1650 \\ x = 75 \end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	х¢	5x + 7y = 760	
soda	у¢	-	
		42x + 28y = 4690	
		-20x - 28y = -3040	
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	Χ¢	5x + 7y = 760	
soda	y ¢	42x + 28y = 4690	-30x
		-20x - 28y = -3040	-30A
		•	
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	х¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	-30x —
		-20x - 28y = -3040	
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	x¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	-30x - 20y
		-20x - 28y = -3040	
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	х¢	5x + 7y = 760	
soda	у¢		20 20
		42x + 28y = 4690	-30x - 20y =
		-20x - 28y = -3040	
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

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	cost each	6x + 4y = 670	Multiply both sides by -5.
hot dog	x¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	-30x - 20y = -3350
		-20x - 28y = -3040	
		22x = 1650	
		x = 75	

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 $\begin{array}{ccc}
cost \\
each \\
hot dog \\
x & \psi \\
soda \\
y & \psi \\
\end{array}$ $\begin{array}{cccc}
6x + 4y = 670 \\
5x + 7y = 760 \\
42x + 28y = 4690 \\
-20x - 28y = -3040 \\
22x = 1650 \\
x = 75 \\
\end{array}$

Solve each of the problems algebraically.

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5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

6x + 4y = 670hot dog x ¢ soda y ¢ 42x + 28y = 4690 -30x - 20y = -3350 -20x - 28y = -3040 22x = 1650 x = 75

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690$$

$$-20x - 28y = -3040$$

$$22x = 1650$$

$$x = 75$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690 -30x - 20y = -3350$$

$$-20x - 28y = -3040 -30x$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690 -30x - 20y = -3350$$

$$-20x - 28y = -3040 \quad 30x +$$

$$22x = 1650$$

$$x = 75$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690 -30x - 20y = -3350$$

$$-20x - 28y = -3040 -30x + 42y$$

$$22x = 1650$$

$$x = 75$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690 -30x - 20y = -3350$$

$$-20x - 28y = -3040 \quad 30x + 42y =$$

$$22x = 1650$$

$$x = 75$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

$$6x + 4y = 670$$
hot dog x ¢
soda y ¢

$$42x + 28y = 4690$$

$$-30x - 20y = -3350$$

$$-20x - 28y = -3040$$

$$30x + 42y = 4560$$

$$22x = 1650$$

$$x = 75$$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{ccc}
cost \\
each \\
hot dog \\
x \not c \\
soda \\
y \not c \\
\end{array}$ $\begin{array}{cccc}
6x + 4y = 670 \\
5x + 7y = 760 \\
42x + 28y = 4690 \\
-30x - 20y = -3350 \\
-20x - 28y = -3040 \\
30x + 42y = 4560 \\
22x = 1650 \\
x = 75 \\
\end{array}$

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

	cost each	6x + 4y = 670	
hot dog	х¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	20x - 20y - 3350
		-20x - 28y = -3040	-30x - 20y = -3350 30x + 42y = 4560
		·	JOX + 12y + 500
		22x = 1650	
		x = 75	

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

 $\begin{array}{ccc}
cost \\
each \\
hot dog \\
soda \\
y \ \ensuremath{\not{x}} \\
 soda \\
y \ \ensuremath{\not{y}} \\
 42x + 28y = 4690 \\
-20x - 28y = -3040 \\
22x = 1650 \\
x = 75
\end{array}$

'Add' the equations.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

hot dog soda	cost each X ¢ Y ¢	6x + 4y = 670 5x + 7y = 760	
soua	у¢	42x + 28y = 4690 -20x - 28y = -3040	-30x - 20y = -3350 30x + 42y = 4560
		22x = 1650 $x = 75$	22y
			'Add' the equations.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

hot dog soda	cost each X ¢ Y ¢	6x + 4y = 670 5x + 7y = 760	
soua	у¢	42x + 28y = 4690 -20x - 28y = -3040	-30x - 20y = -3350 30x + 42y = 4560
		22x = 1650 $x = 75$	22y =
			'Add' the equations.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

hot dog soda	cost each X ¢ Y ¢	6x + 4y = 670 5x + 7y = 760	
Soua	у¢	42x + 28y = 4690 -20x - 28y = -3040	-30x - 20y = -3350 30x + 42y = 4560
		22x = 1650 $x = 75$	22y = 1210
			'Add' the equations.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

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Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

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Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670	
hot dog	х¢	5x + 7y = 760	
soda	у¢	42x + 28x - 4600	$20_{\rm rr} = 20_{\rm rr} = 2250$
		42x + 28y = 4690 20x - 28y = -3040	-30x - 20y = -3350 30x + 42y = 4560
		-20x - 28y = -3040	30x + 42y - 4300
		22x = 1650	22y = 1210
		x = 75	y =

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

Each hot dog costs 75¢,

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670	
hot dog	х¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	-30x - 20y = -3350
		-20x - 28y = -3040	30x + 42y = 4560
		22x = 1650	22y = 1210
		x = 75	y = 55

Each hot dog costs 75¢, and each soda costs 55¢.

Solve each of the problems algebraically.

Use a system of 2 equations with 2 variables.

5. Six hot dogs and 4 sodas cost \$6.70. Five hot dogs and 7 sodas cost \$7.60. What is the cost of each item?

	cost each	6x + 4y = 670	
hot dog	x¢	5x + 7y = 760	
soda	у¢	42x + 28y = 4690	-30x - 20y = -3350
		-20x - 28y = -3040	30x + 42y = 4560
		22x = 1650 $x = 75$	22y = 1210 $y = 55$

Each hot dog costs 75¢, and each soda costs 55¢.

volume	percent
of solution	acid

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume percent of solution acid x ml

volume	percent
of solution	acid
x ml	20%

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume percent of solution acid x ml 20% y ml

volume	percent
of solution	acid
x ml	20%
y ml	70%

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume	percent
of solution	acid
x ml	20%
y ml	70%

mixture:

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume	percent
of solution	acid
x ml	20%
y ml	70%

mixture: 60 ml

(volume of solution	percent acid
	x ml	20%
	y ml	70%
mixture:	60 ml	35%

	volume of solution	percent acid
	x ml	20%
	y ml	70%
mixture:	60 ml	35%

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

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	volume of solution	percent acid	
	x ml	20%	
	y ml	70%	
mixture:	60 ml	35%	

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

 \mathbf{x} +

volume	percent	
of solution	acid	
x ml	20%	
y ml	70%	
60 ml	35%	-
	of solution x ml y ml	of solution acid x ml 20%

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

 $\mathbf{x} + \mathbf{y}$

	volume	percent	
	of solution	acid	
	x ml	20%	
	y ml	70%	
mixture:	60 ml	35%	

	volume of solution	percent acid	X	+ y =
	x ml	20%		
	y ml	70%		
mixture:	60 ml	35%		

	volume of solution	percent acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	
	y ml	70%	
mixture:	60 ml	35%	

	volume of solution	-	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	
	y ml	70%	
mixture:	60 ml	35%	-

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%		
	y ml	70%		
mixture:	60 ml	35%		-

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume of solution	percent acid		$\mathbf{x} + \mathbf{y} = 60$
x ml	20%	0.2x ml	
y ml	70%		

mixture: 60 ml 35%

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

volume of solution	-		$\mathbf{x} + \mathbf{y} = 60$
x ml	20%	0.2x ml	
y ml	70%	0.7y ml	

mixture: 60 ml 35%

	volume of solution	1		$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	
	y ml	70%	0.7y ml	
mixture	: 60 ml	35%	21 ml	

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

60

		percent		$\mathbf{x} + \mathbf{y} = \mathbf{x}$
	of solution	acid $200/$	of acid 0.2x ml	0.2x
			0.2x m 0.7y ml	0.2Λ
_	•			
mixtu	re: 60 ml	35%	21 ml	

volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
x ml	20%	0.2x ml	0.2x +
y ml	70%	0.7y ml	
60 ml	35%	21 ml	
	of solution x ml y ml	of solutionacidx ml20%y ml70%	volume of solutionpercent acidvolume of acidx ml20% 0.2x ml y ml70% 0.7y ml 60 ml35% 21 ml

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

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_

volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
x ml	20%	0.2x ml	0.2x + 0.7y =
y ml	70%	0.7y ml	
60 ml	35%	21 ml	
	of solution x ml y ml	of solutionacidx ml20%y ml70%	volume of solutionpercent acidvolume of acidx ml20% 0.2x ml y ml70% 0.7y ml 60 ml35% 21 ml

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

	volume of solution	percent acid		x +
			0.2x ml	0.2x
	y ml	70%	0.7y ml	
mixture:	60 ml	35%	21 ml	

$$x + y = 60$$

 $0.2x + 0.7y = 21$

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	_
mixture:	60 ml	35%	21 ml	
				Multiply both sides by 10.

	volume of solution	percent acid	volume of acid		x + y = 60	
	x ml	20%	0.2x ml		0.2x + 0.7y = 21	
	y ml	70%	0.7y ml		2x	
mixture:	60 ml	35%	21 ml			
				M	ultiply both sides l	oy 10.

	volume of solution	1	volume of acid		$\mathbf{x} + \mathbf{y} = 60$	
	x ml	20%	0.2x ml		0.2x + 0.7y = 21	
	y ml	70%	0.7y ml	_	2x +	
mixture:	60 ml	35%	21 ml			
				M	ultiply both sides b	y 10.

	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y
mixture:	60 ml	35%	21 ml	
				Multiply both sides by 10.

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$	
		20%	0.2x ml	0.2x + 0.7y = 21	
	y ml	70%	0.7y ml	2x + 7y =	
mixture	: 60 ml	35%	21 ml	-	
				A. F. 1. 1. 1. 1. 1. 1. 1.	1

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$	
		20%	0.2x ml	0.2x + 0.7y = 21	
	y ml	70%	0.7y ml	2x + 7y = 210	
mixture:	60 ml	35%	21 ml	_	
					1

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

	volume of solution	-		$\mathbf{x} + \mathbf{y} = 60$
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	y ml	70%	0.7y ml	2x + 7y = 210
•	(0 1	250/	01 1	

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	volume of solution	percent acid		x + y =
	x ml	20%	0.2x ml	0.2x +
	y ml	70%	0.7y ml	2x + 7
mixture:	60 ml	35%	21 ml	

$$x + y = 60$$

 $0.2x + 0.7y = 21$
 $2x + 7y = 210$

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	volume of solution	1		$\mathbf{x} + \mathbf{y} = 60$	
			0.2x ml	0.2x + 0.7y =	= 21
	y ml	70%	0.7y ml	2x + 7y = 2	10
mixture:	60 ml	35%	21 ml	-2x	

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	volume of solution	1	volume of acid	$\mathbf{x} + \mathbf{y} = 60$	
	x ml	20%	0.2x ml	0.2x + 0.7y =	= 2
	y ml	70%	0.7y ml	2x + 7y = 2	210
mixture:	60 ml	35%	21 ml	-2x - 2y	

Multiply both sides by -2.

1

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mixture:	60 ml	35%	21 ml	-2x - 2y = -120

	volume of solution	1	volume of acid	x + y = 60
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
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'Add' the equations.

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
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	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90

'Add' the equations.

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
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mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				У

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y =

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$	
	x ml	20%	0.2x ml	0.2x + 0.7y =	= 21
	y ml	70%	0.7y ml	2x + 7y = 2	10
mixture:	60 ml	35%	21 ml	-2x - 2y = -2	120
				5y = 90	
				y = 18	
				X	

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
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				5y = 90
				y = 18
				$\mathbf{x} =$

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	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18
				x = 42

	volume of solution	percent acid	volume of acid	x + y = 60
	x ml	20%	$0.2 \mathrm{x} \mathrm{ml}$	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture:	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18
				x = 42

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
	y ml	70%	0.7y ml	2x + 7y = 210
mixture	60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18
				x = 42

She should use 42 milliliters of the 20% solution

6. A chemist has one solution which is 20% acid and another solution which is 70% acid. How many milliliters of each should she use to make 60 ml of a solution which is 35% acid?

	volume of solution	percent acid	volume of acid	$\mathbf{x} + \mathbf{y} = 60$
	x ml	20%	0.2x ml	0.2x + 0.7y = 21
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mixture	e: 60 ml	35%	21 ml	-2x - 2y = -120
				5y = 90
				y = 18
				x = 42

She should use 42 milliliters of the 20% solution and 18 milliliters of the 70% solution.

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				5y = 90
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She should use 42 milliliters of the 20% solution and 18 milliliters of the 70% solution.

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 y ml
 70%
 0.7y ml
 2x + 7y = 210

 mixture:
 60 ml
 35%
 21 ml
 2x - 2y = -120

 5y = 90 y = 18 x = 42

She should use 42 milliliters of the 20% solution and 18 milliliters of the 70% solution.