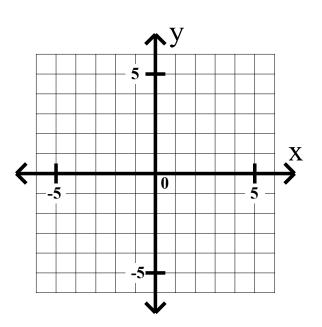
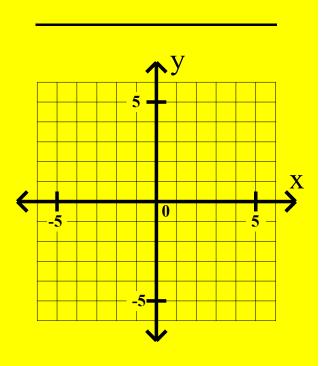
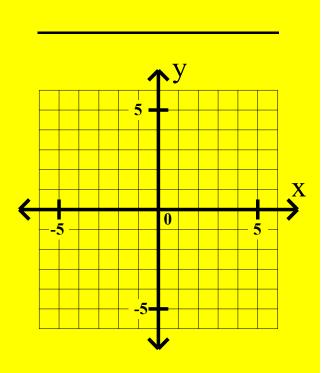
Algebra II Lesson #3 Unit 2 Notes #3

Class Worksheet #3

For Worksheets #3 & #4

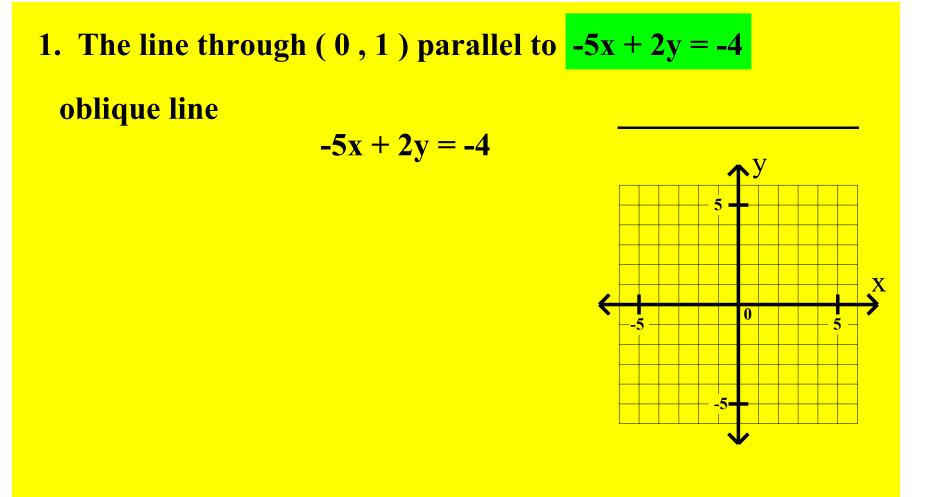


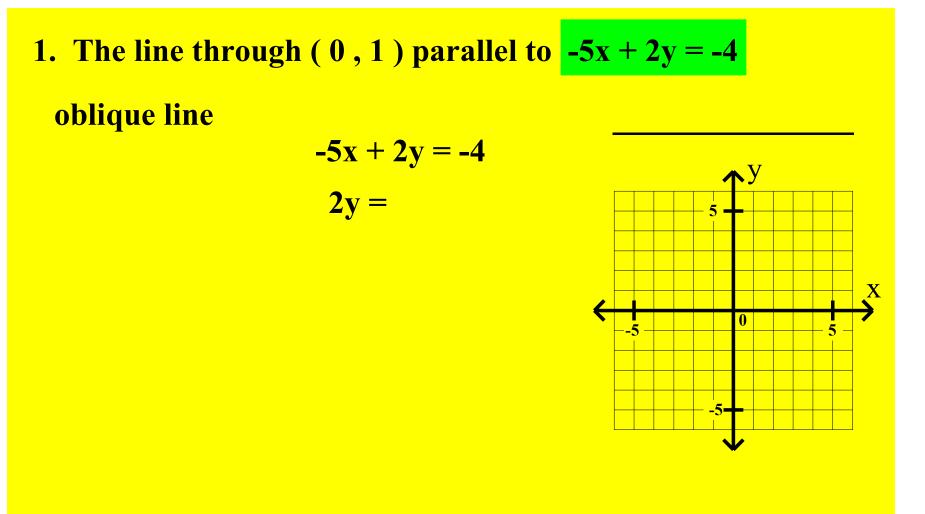


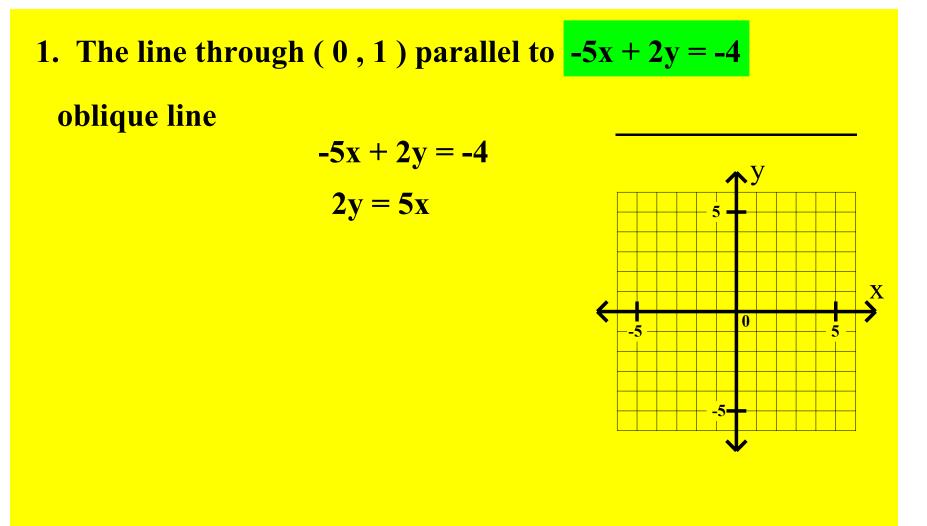


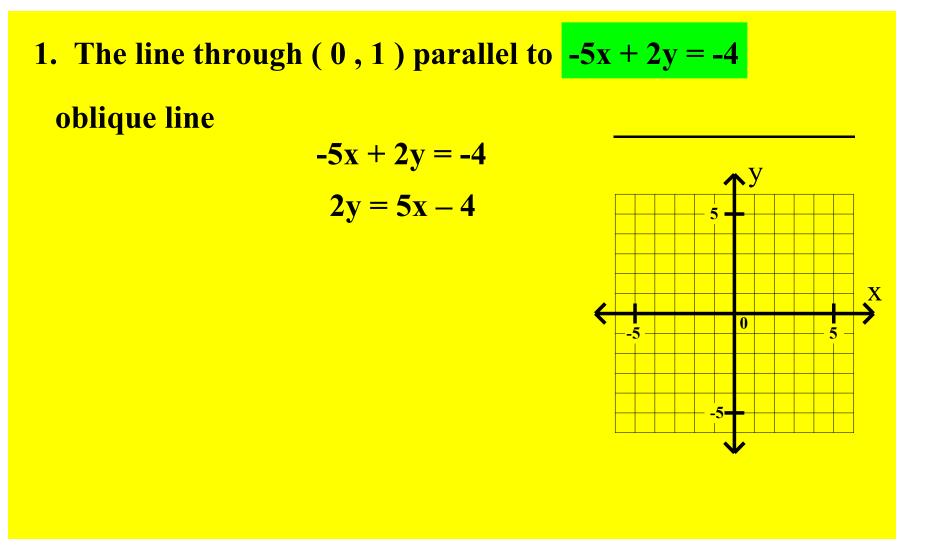
1. The line through (0, 1) parallel to -5x + 2y = -4oblique line

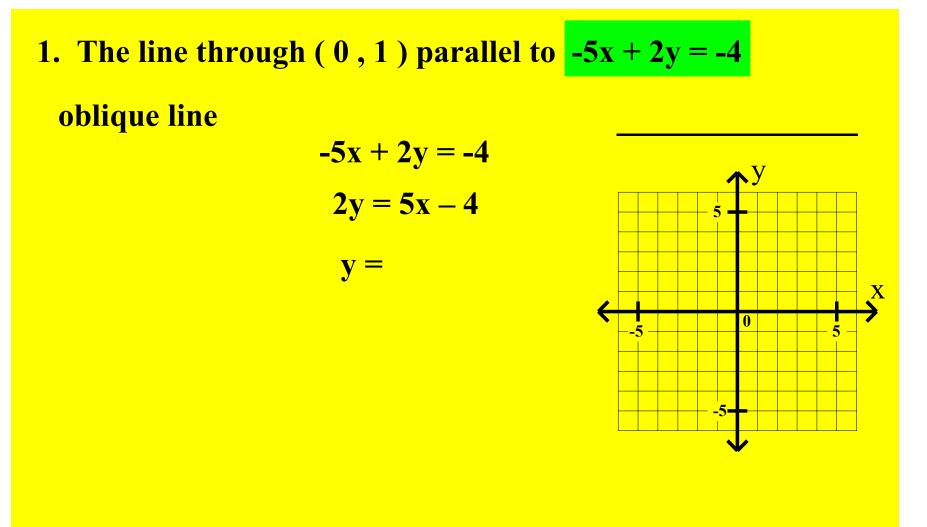
X

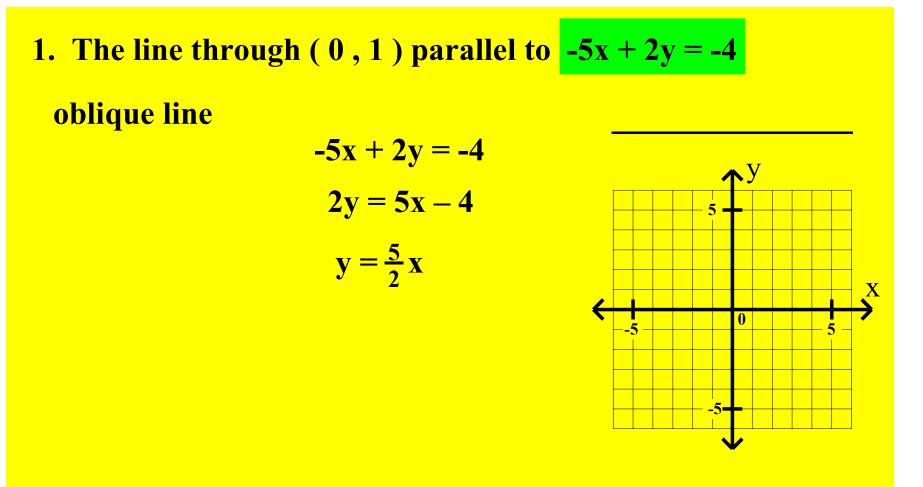








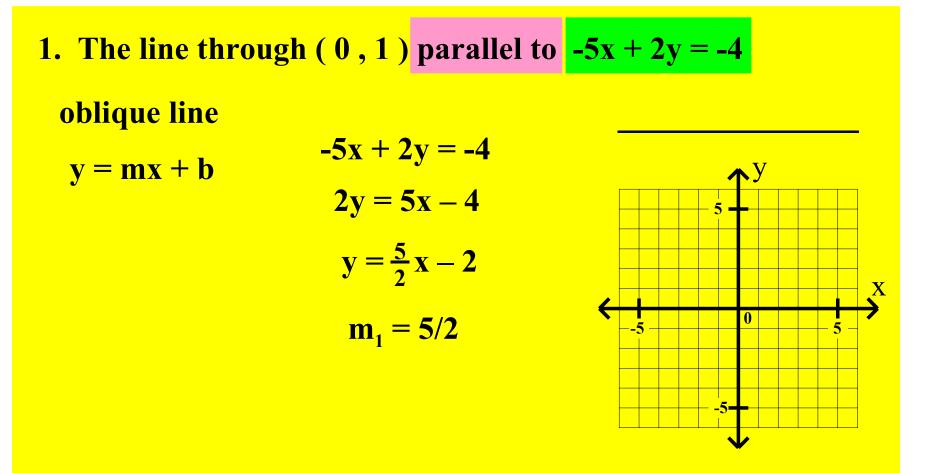


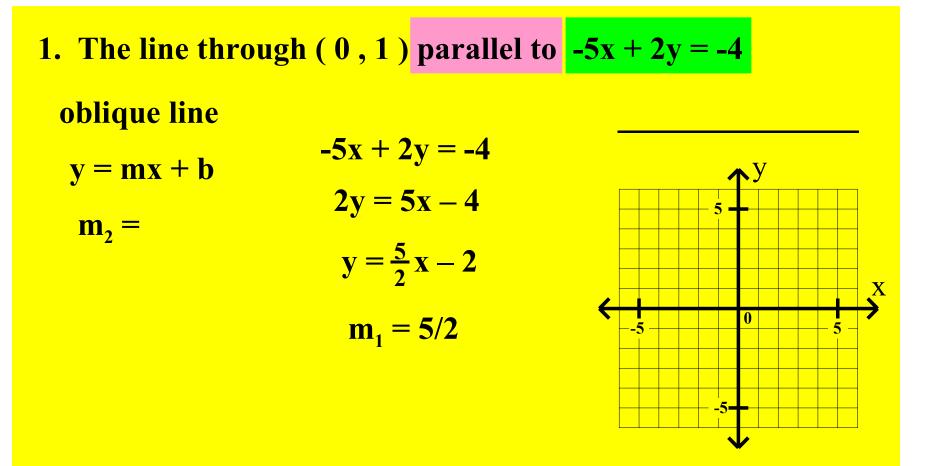


1. The line through (0, 1) parallel to -5x + 2y = -4**oblique line** -5x + 2y = -42y = 5x - 4 $y = \frac{5}{2}x - 2$ X 0

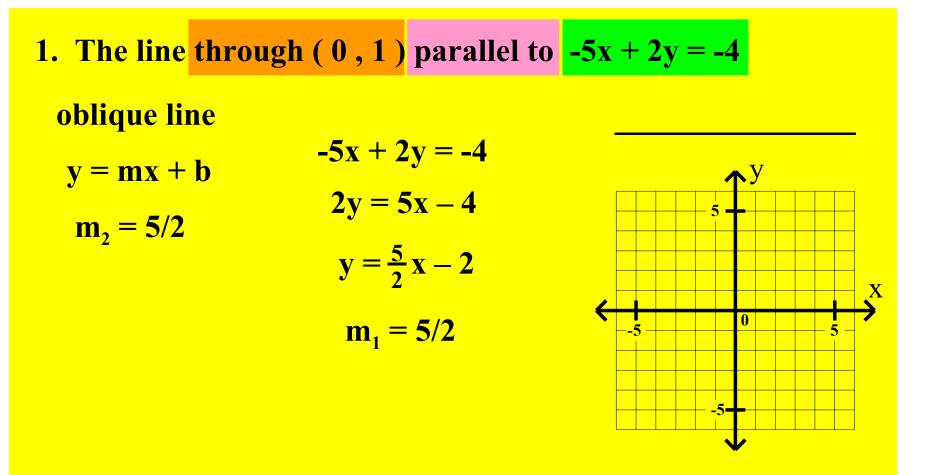
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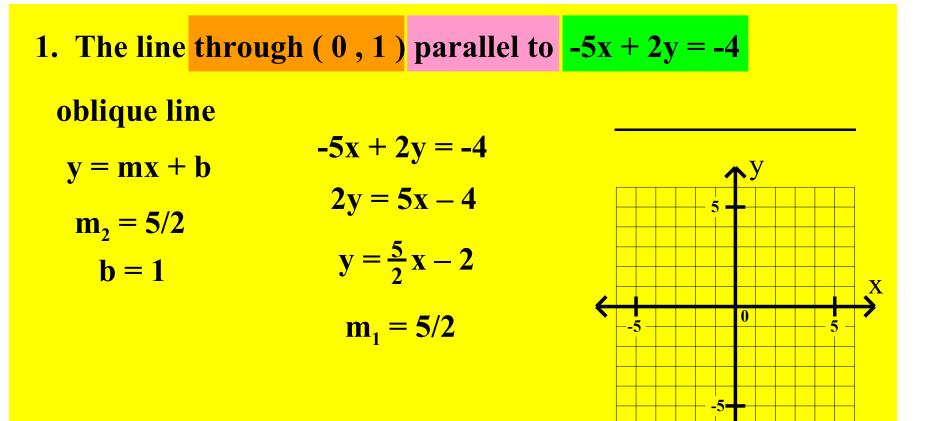
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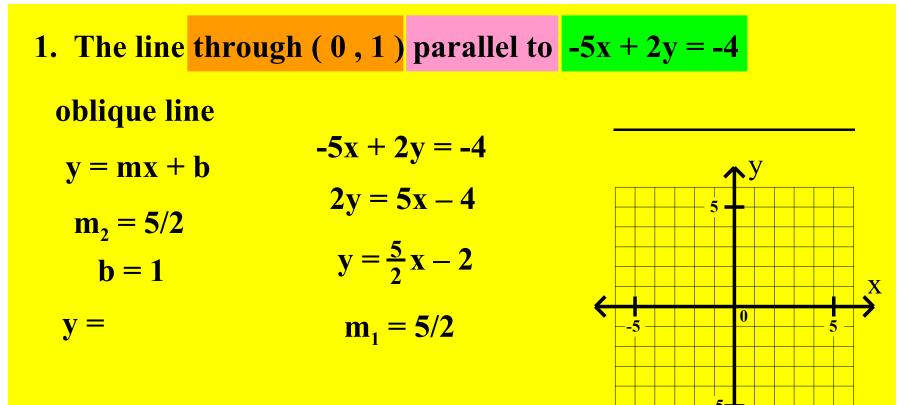


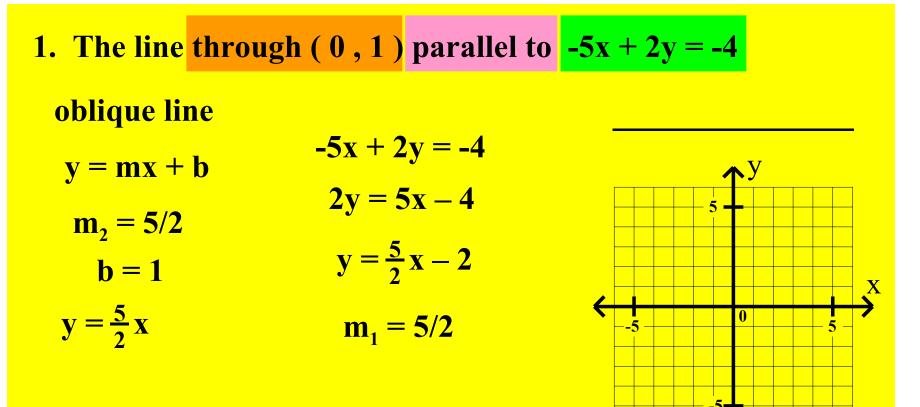


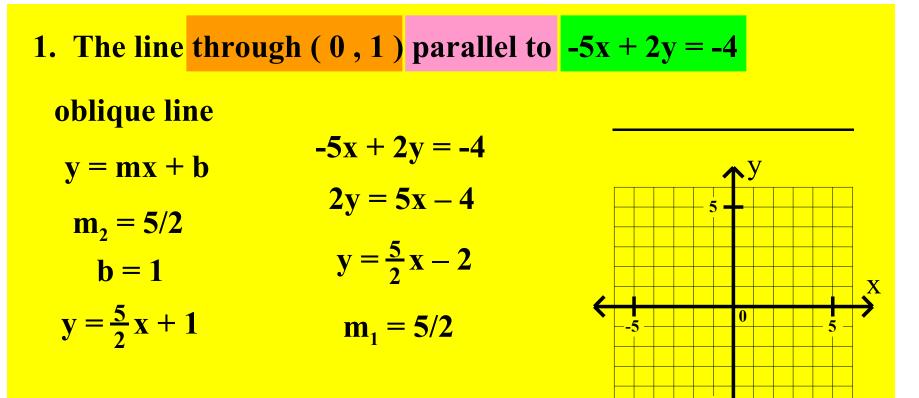
1. The line through (0, 1) parallel to -5x + 2y = -4oblique line y = mx + b $m_2 = 5/2$ -5x + 2y = -4 2y = 5x - 4 $y = \frac{5}{2}x - 2$ $m_1 = 5/2$ $m_1 = 5/2$











1. The line through (0, 1) parallel to -5x + 2y = -4

-5x + 2y = -4

oblique line

 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$

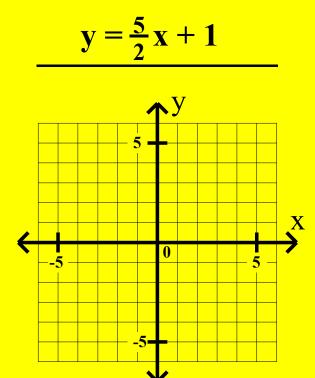
 $m_2 = 5/2$

b = 1

2y = 5x - 4

$$\mathbf{y} = \frac{5}{2}\mathbf{x} - \mathbf{y}$$

 $y = \frac{5}{2}x + 1$ $m_1 = 5/2$



1. The line through (0, 1) parallel to -5x + 2y = -4

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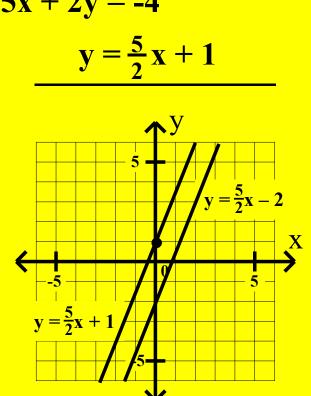
 $m_2 = 5/2$

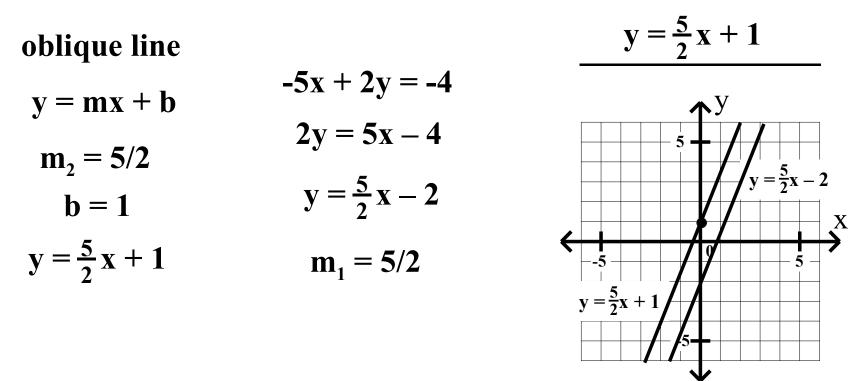
b = 1

2y = 5x - 4

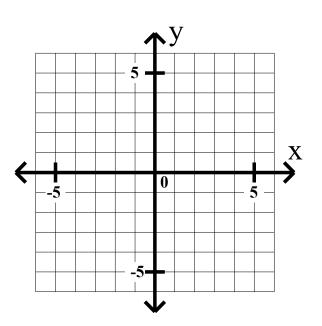
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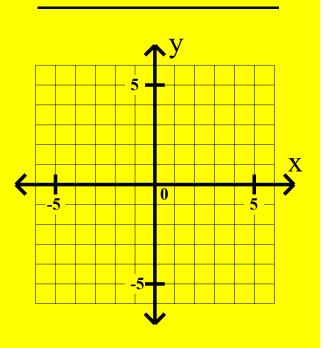




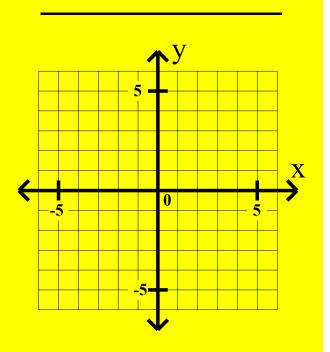
2. The line through (-3, 2) parallel to 4x + 3y = 9



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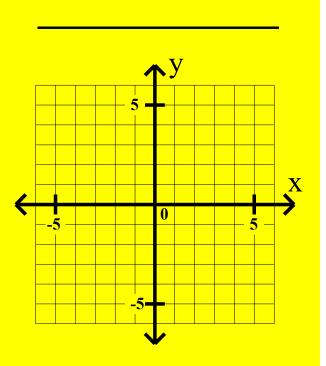


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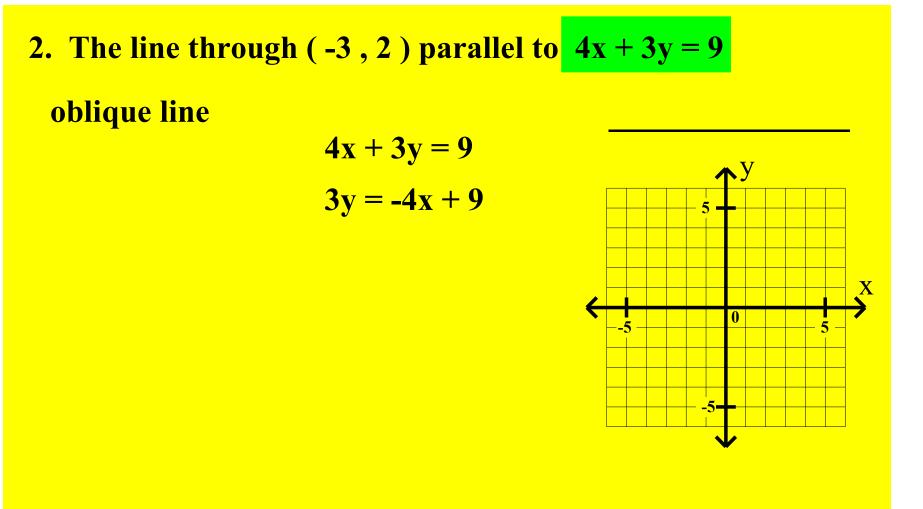
oblique line



2. The line through (-3, 2) parallel to 4x + 3y = 9**oblique line** 4x + 3y = 9Х

2. The line through (-3, 2) parallel to 4x + 3y = 9oblique line $4\mathbf{x} + 3\mathbf{y} = 9$ **3**y = Х A

2. The line through (-3, 2) parallel to 4x + 3y = 9oblique line $4\mathbf{x} + 3\mathbf{y} = 9$ 3y = -4xХ

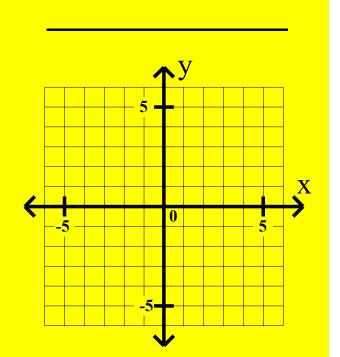


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oblique line

$$4x + 3y = 9$$
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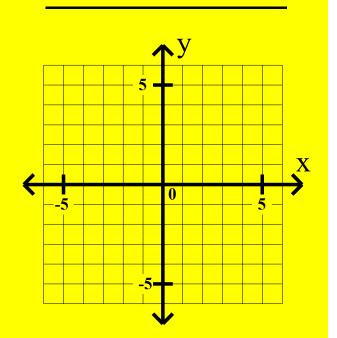


$$y = \frac{-4}{3}x$$

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oblique line

$$4x + 3y = 9$$
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$$y = \frac{-4}{3}x + 3$$

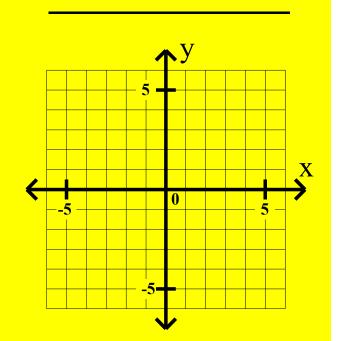


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oblique line

$$4x + 3y = 9$$

 $3y = -4x + 9$
 $y = \frac{-4}{3}x + 3$
 $m_1 = -\frac{4}{3}$



2. The line through (-3, 2) parallel to 4x + 3y = 9**oblique line** $4\mathbf{x} + 3\mathbf{y} = 9$ $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ 3y = -4x + 9 $y = \frac{-4}{3}x + 3$ Х $m_1 = -4/3$ 0

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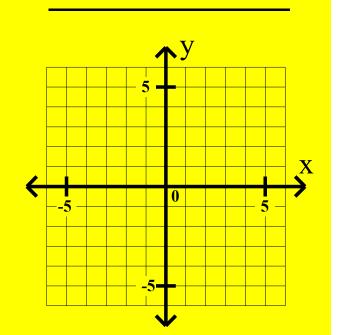
2. The line through (-3, 2) parallel to 4x + 3y = 9**oblique line** $4\mathbf{x} + 3\mathbf{y} = 9$ y = mx + b $3\mathbf{y} = -4\mathbf{x} + 9$ $m_2 =$ $y = \frac{-4}{3}x + 3$ Х $m_1 = -4/3$ 0

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y = mx + b

$$m_2 = -4/3$$

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oblique line

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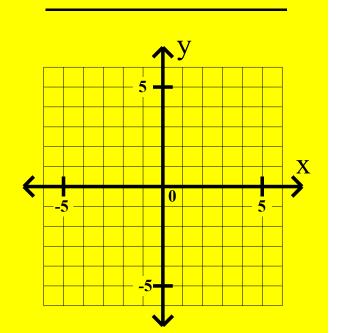
b = ?

 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$

3y = -4x + 9

$$y = \frac{-4}{3}x + 3$$

 $4\mathbf{x} + 3\mathbf{y} = 9$



2. The line through (-3, 2) parallel to 4x + 3y = 9oblique line y = mx + b $m_2 = -4/3$ b = ? $m_1 = -4/3$ 4x + 3y = 9 3y = -4x + 9 $y = \frac{4}{3}x + 3$ $m_1 = -4/3$

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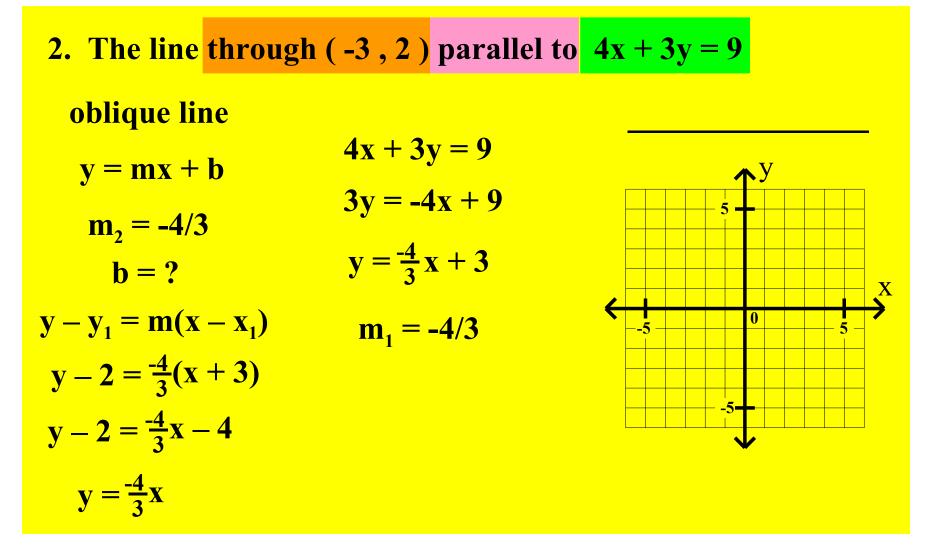
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2. The line through (-3, 2) parallel to 4x + 3y = 9

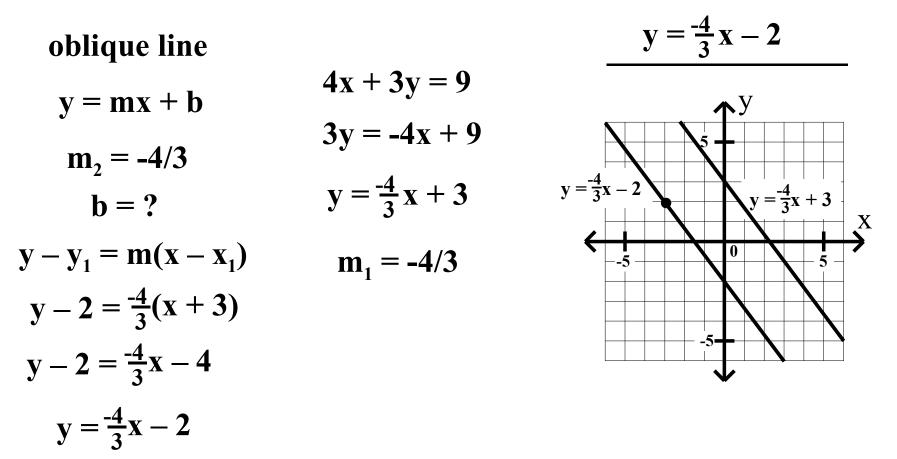
 $y = \frac{-4}{3}x - 2$ **oblique line** $4\mathbf{x} + 3\mathbf{y} = 9$ y = mx + b3y = -4x + 9 $m_2 = -4/3$ $y = \frac{-4}{3}x + 3$ **b** = ? $y - y_1 = m(x - x_1)$ 0 $m_1 = -4/3$ $y-2=\frac{-4}{3}(x+3)$ $y-2 = \frac{-4}{3}x - 4$ $y = \frac{-4}{3}x - 2$

X

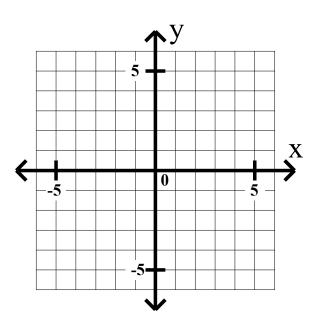
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 $y = \frac{-4}{3}x - 2$ **oblique line** $4\mathbf{x} + 3\mathbf{y} = 9$ y = mx + b3y = -4x + 9 $m_2 = -4/3$ $y = \frac{-4}{3}x + 3$ $y = \frac{-4}{3}x - 2$ $y = \frac{-4}{3}x + 3$ **b** = ? $y - y_1 = m(x - x_1)$ 0 $m_1 = -4/3$ $y-2=\frac{-4}{3}(x+3)$ $y-2 = \frac{-4}{3}x - 4$ $y = \frac{-4}{3}x - 2$

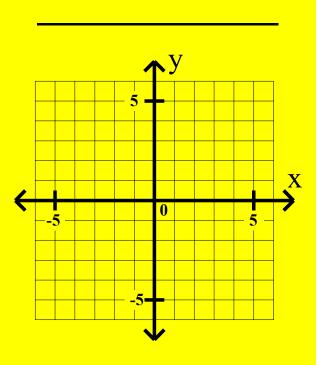
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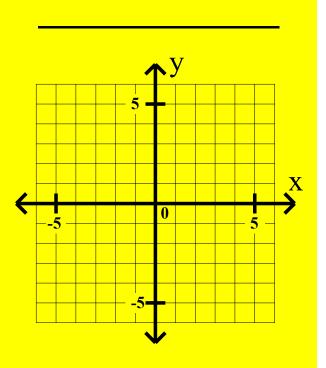
3. The line through (2, 5) parallel to x - 3y = 6



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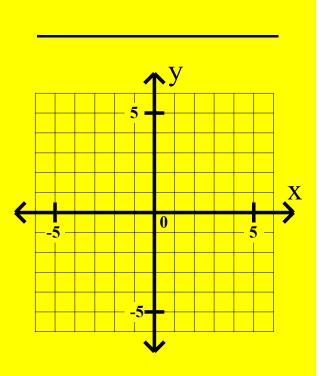


3. The line through (2, 5) parallel to x - 3y = 6



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oblique line



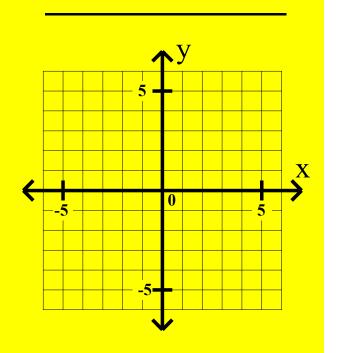
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oblique line

$$\mathbf{x} - \mathbf{3y} = \mathbf{6}$$

-3y =

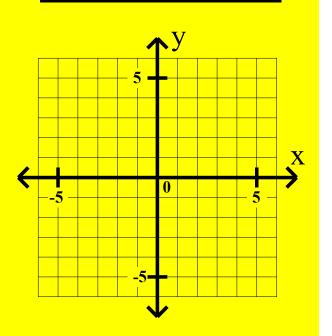


3. The line through (2, 5) parallel to x - 3y = 6

-3y = -x

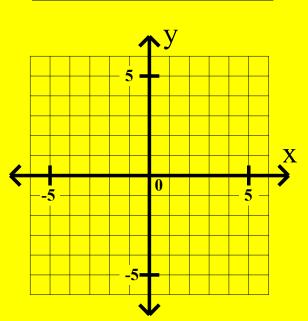
oblique line

$$\mathbf{x} - 3\mathbf{y} = \mathbf{6}$$



3. The line through (2, 5) parallel to x - 3y = 6oblique line x - 3y = 6

-3y = -x + 6

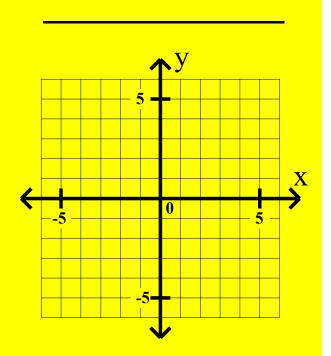


3. The line through (2, 5) parallel to x - 3y = 6

oblique line

$$x - 3y = 6$$
$$-3y = -x + 6$$



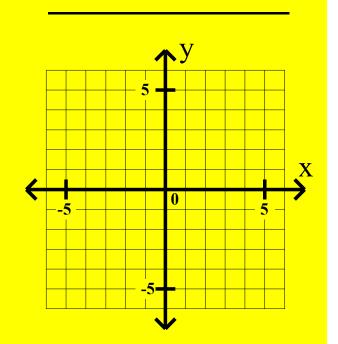


3. The line through (2, 5) parallel to x - 3y = 6

oblique line

$$x - 3y = 6$$
$$-3y = -x + 6$$

 $y = \frac{1}{3}x$



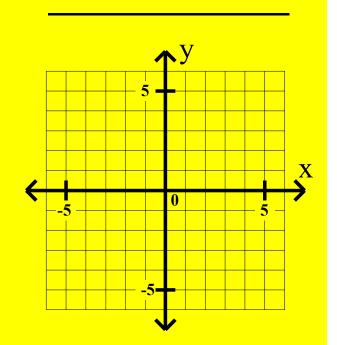
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J

oblique line

$$x - 3y = 6$$
$$-3y = -x + 6$$
$$y = \frac{1}{2}x - 2$$

3



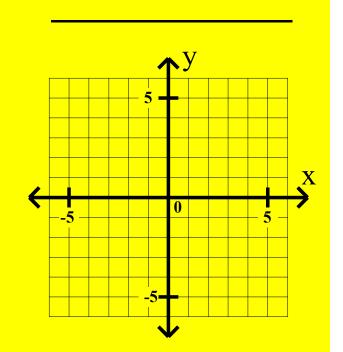
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oblique line

$$x - 3y = 6$$

-3y = -x + 6
$$y = \frac{1}{3}x - 2$$

$$m_1 = 1/3$$



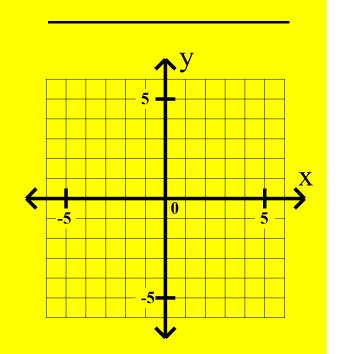
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oblique line

$$x - 3y = 6$$

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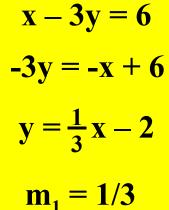
$$m_1 = 1/3$$

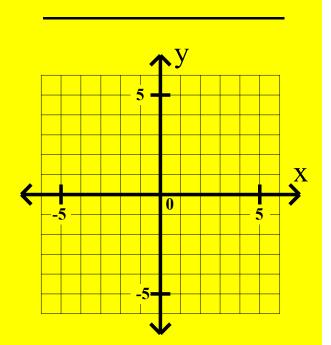


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oblique line

 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$



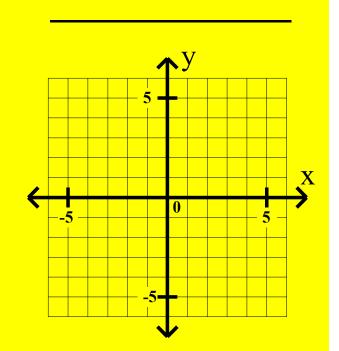


3. The line through (2, 5) parallel to x - 3y = 6

 $m_1 = 1/3$

oblique line

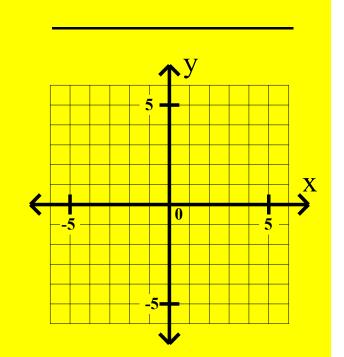
y = mx + b $m_{2} = x - 3y = 6$ -3y = -x + 6 $y = \frac{1}{3}x - 2$

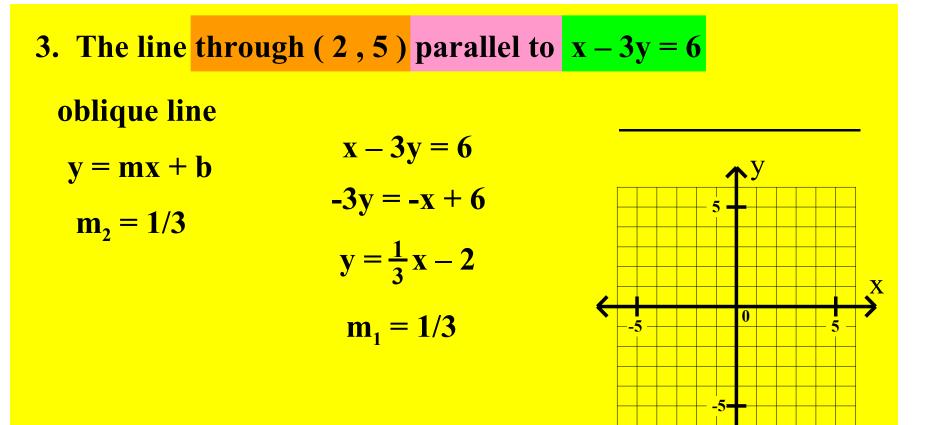


3. The line through (2, 5) parallel to x - 3y = 6

oblique line

y = mx + b $m_2 = 1/3$ x - 3y = 6 -3y = -x + 6 $y = \frac{1}{3}x - 2$ $m_1 = 1/3$



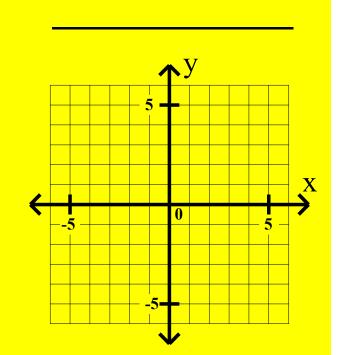


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 $m_1 = 1/3$

oblique line

y = mx + b m₂ = 1/3 b = ? x - 3y = 6-3y = -x + 6 $y = \frac{1}{3}x - 2$

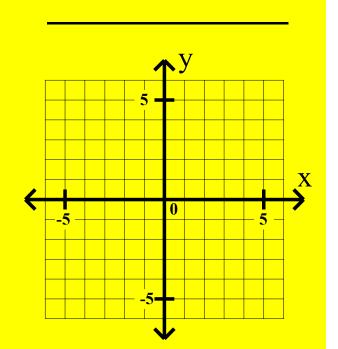


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oblique line

y = mx + b m₂ = 1/3 b = ? x - 3y = 6-3y = -x + 6 y = $\frac{1}{3}x - 2$

 $y - y_1 = m(x - x_1)$ $m_1 = 1/3$

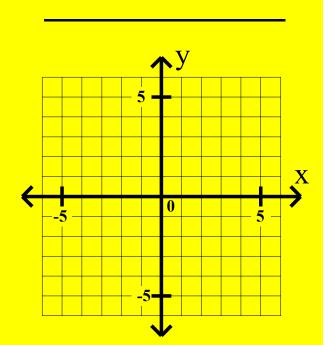


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oblique line

y - 5 =

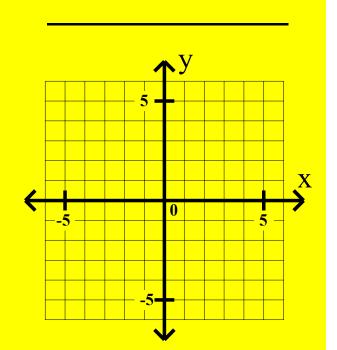
y = mx + b m₂ = 1/3 b = ? y - y₁ = m(x - x₁) x - 3y = 6-3y = -x + 6 y = $\frac{1}{3}x - 2$ m₁ = 1/3



3. The line through (2, 5) parallel to x - 3y = 6

oblique line

y = mx + b m₂ = 1/3 b = ? y - y₁ = m(x - x₁) y - 5 = $\frac{1}{3}$ (x - 3y = 6 -3y = -x + 6 y = $\frac{1}{3}x - 2$ m₁ = 1/3

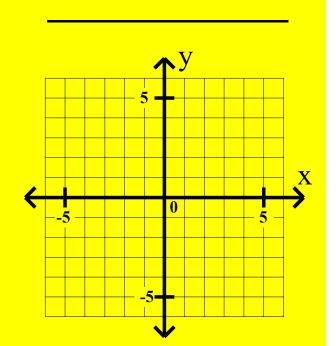


3. The line through (2, 5) parallel to x - 3y = 6

oblique line

 $y-5=\frac{1}{3}(x-2)$

y = mx + b m₂ = 1/3 b = ? y - y₁ = m(x - x₁) x - 3y = 6 -3y = -x + 6 y = $\frac{1}{3}x - 2$ m₁ = 1/3



3. The line through (2, 5) parallel to x - 3y = 6

oblique line

y - 5 =

y = mx + b m₂ = 1/3 b = ? x - 3y = 6-3y = -x + 6 y = $\frac{1}{3}x - 2$

 $y - y_1 = m(x - x_1)$ $y - 5 = \frac{1}{3}(x - 2)$ $m_1 = 1/3$ x --5 --5 --5

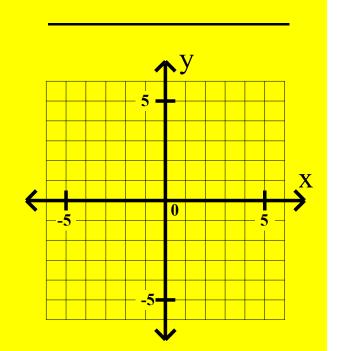
3. The line through (2, 5) parallel to x - 3y = 6

oblique line

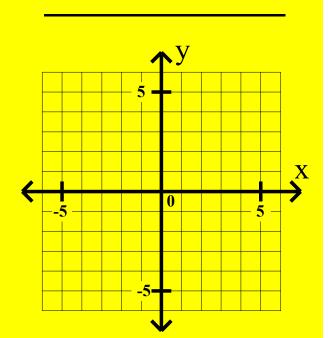
 $y-5=\frac{1}{3}(x-2)$

 $y-5=\frac{1}{3}x$

y = mx + b m₂ = 1/3 b = ? y - y₁ = m(x - x₁) x - 3y = 6-3y = -x + 6 y = $\frac{1}{3}x - 2$ m₁ = 1/3



- 3. The line through (2, 5) parallel to x 3y = 6oblique line
- y = mx + b m₂ = 1/3 b = ? y - y₁ = m(x - x₁) y - 5 = $\frac{1}{3}(x - 2)$ x - 3y = 6 -3y = -x + 6 y = $\frac{1}{3}x - 2$ m₁ = 1/3 m₁ = 1/3

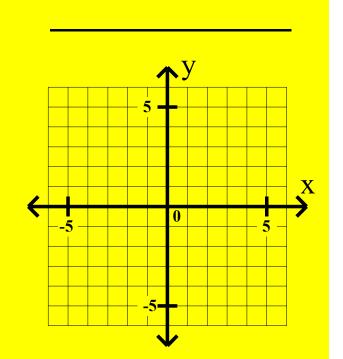


3. The line through (2, 5) parallel to x - 3y = 6

oblique line

y = mx + b m₂ = 1/3 b = ? x - 3y = 6-3y = -x + 6 $y = \frac{1}{3}x - 2$

 $y - y_1 = m(x - x_1)$ $y - 5 = \frac{1}{3}(x - 2)$ $m_1 = 1/3$



y =

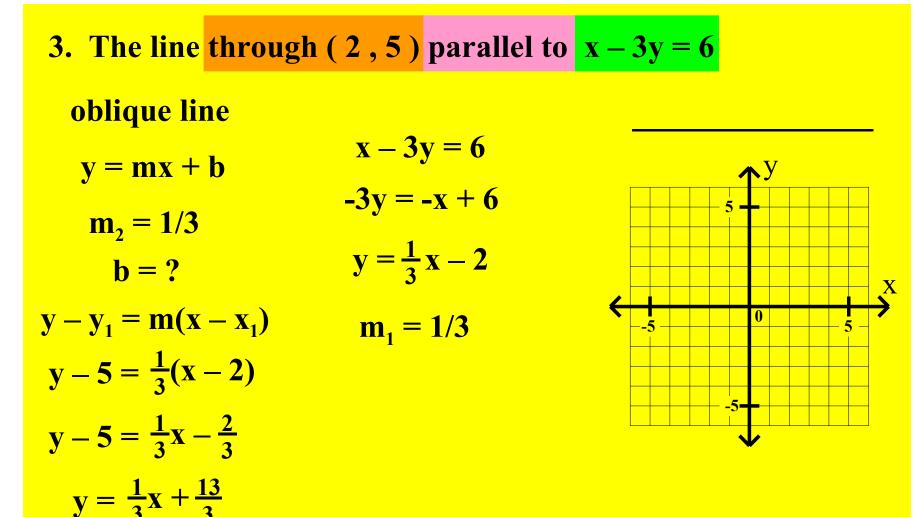
 $y-5=\frac{1}{3}x-\frac{2}{3}$

3. The line through (2,5) parallel to x - 3y = 6oblique line y = mx + b $m_2 = 1/3$ b = ? $y - y_1 = m(x - x_1)$ $y - 5 = \frac{1}{3}(x - 2)$ x - 3y = 6 -3y = -x + 6 $y = \frac{1}{3}x - 2$ $m_1 = 1/3$ $m_1 = 1/3$

 $y-5=\frac{1}{3}x-\frac{2}{3}$

 $y = \frac{1}{3}x$

X



X

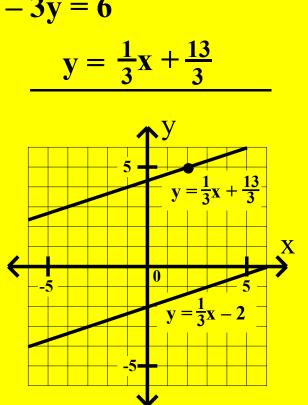
0

3. The line through (2, 5) parallel to x - 3y = 6

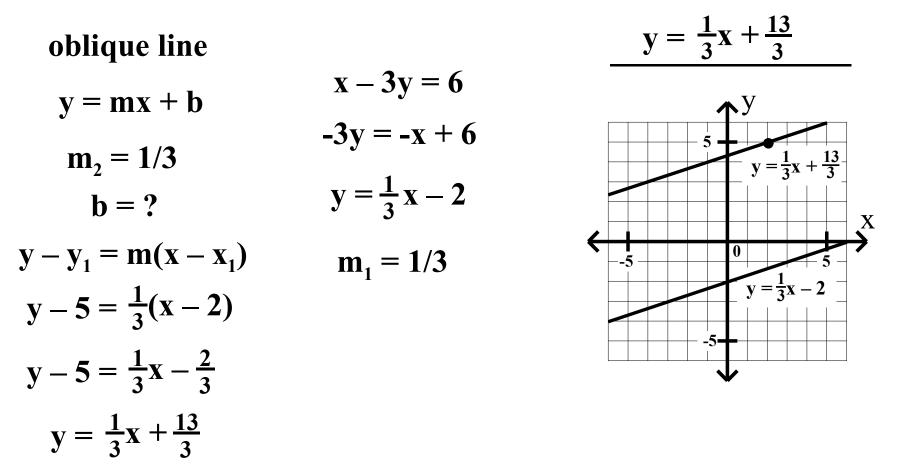
 $y = \frac{1}{3}x + \frac{13}{3}$ **oblique line** $\mathbf{x} - 3\mathbf{y} = \mathbf{6}$ $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ -3y = -x + 6 $m_2 = 1/3$ $y = \frac{1}{3}x - 2$ **b** = ? $y - y_1 = m(x - x_1)$ $m_1 = 1/3$ $y-5=\frac{1}{3}(x-2)$ $y-5=\frac{1}{3}x-\frac{2}{3}$ $y = \frac{1}{3}x + \frac{13}{3}$

3. The line through (2, 5) parallel to x - 3y = 6

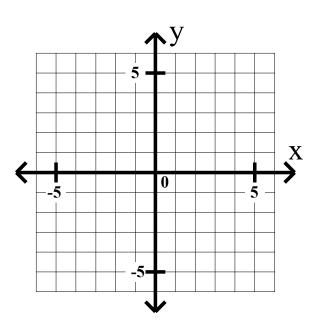
oblique line $\mathbf{x} - 3\mathbf{y} = \mathbf{6}$ $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ -3y = -x + 6 $m_2 = 1/3$ $y = \frac{1}{3}x - 2$ **b** = ? $\mathbf{y} - \mathbf{y}_1 = \mathbf{m}(\mathbf{x} - \mathbf{x}_1)$ $m_1 = 1/3$ $y-5=\frac{1}{3}(x-2)$ $y-5=\frac{1}{3}x-\frac{2}{3}$ $y = \frac{1}{3}x + \frac{13}{3}$



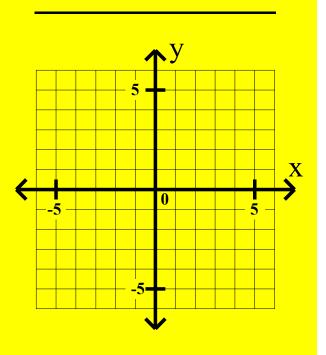
3. The line through (2, 5) parallel to x - 3y = 6



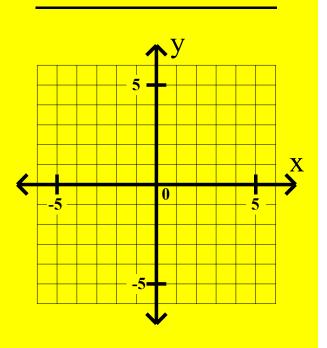
4. The line through (0, 4) perpendicular to 2x - 3y = 9



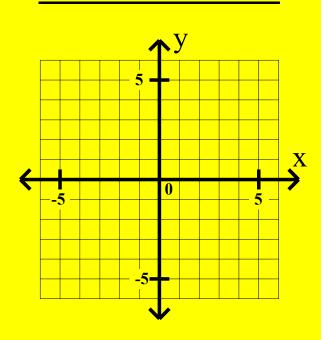
4. The line through (0, 4) perpendicular to 2x - 3y = 9



4. The line through (0, 4) perpendicular to 2x - 3y = 9



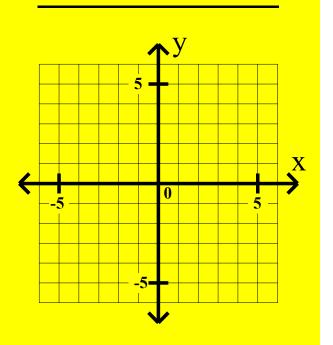
4. The line through (0, 4) perpendicular to 2x - 3y = 9oblique line



4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

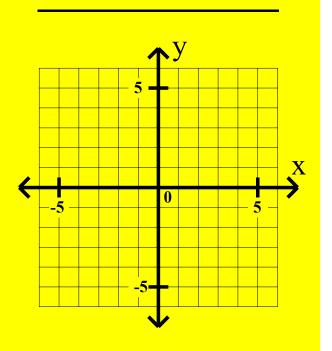
$$2x - 3y = 9$$



4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

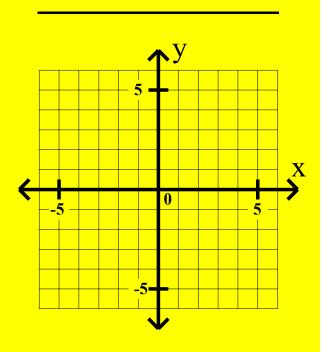
2x - 3y = 9-3y =



4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

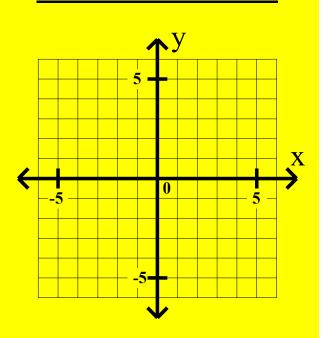
2x - 3y = 9-3y = -2x



4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

$$2x - 3y = 9$$
$$-3y = -2x + 9$$



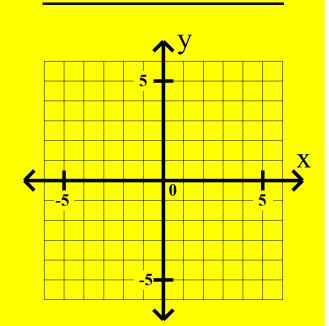
4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

$$2x - 3y = 9$$

$$-3y = -2x + 9$$

 $\mathbf{v} =$

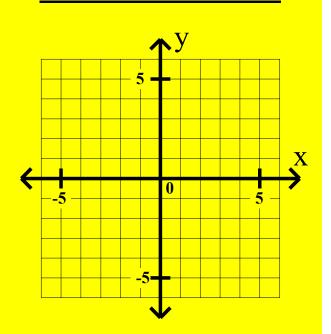


4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

$$2x - 3y = 9$$
$$-3y = -2x + 9$$

 $y = \frac{2}{3}x$

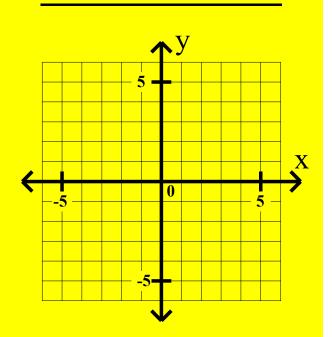


4. The line through (0, 4) perpendicular to 2x - 3y = 9

oblique line

$$2x - 3y = 9$$
$$-3y = -2x + 9$$
$$y = \frac{2}{3}x - 3$$

3 1

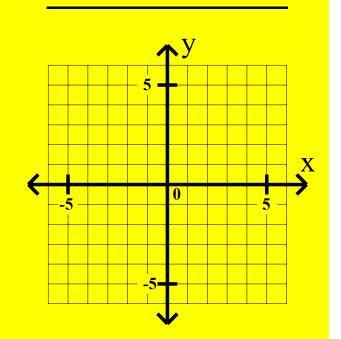


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oblique line

$$2x - 3y = 9$$
$$-3y = -2x + 9$$
$$y = \frac{2}{3}x - 3$$

 $m_1 = 2/3$

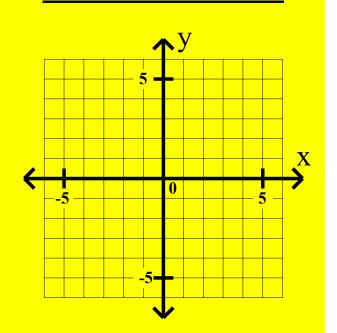


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4. The line through (0, 4) perpendicular to 2x - 3y = 9oblique line y = mx + b 2x - 3y = 9 -3y = -2x + 9 $y = \frac{2}{3}x - 3$ $m_1 = 2/3$

4. The line through (0, 4) perpendicular to 2x - 3y = 9oblique line y = mx + b $m_2 =$ 2x - 3y = 9 -3y = -2x + 9 $y = \frac{2}{3}x - 3$ $m_1 = 2/3$

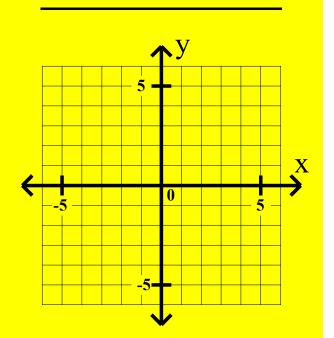
X

4. The line through (0, 4) perpendicular to 2x - 3y = 9

 oblique line
 2x - 3y = 9

 y = mx + b -3y = -2x + 9

 $m_2 = -3/2$ $y = \frac{2}{3}x - 3$
 $m_1 = 2/3$



4. The line through (0, 4) perpendicular to 2x - 3y = 9oblique line y = mx + b $m_2 = -3/2$ 2x - 3y = 9 -3y = -2x + 9 $y = \frac{2}{3}x - 3$ $m_1 = 2/3$

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X

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X

4. The line through (0, 4) perpendicular to 2x - 3y = 9oblique line y = mx + b $m_2 = -3/2$ b = 4 $y = \frac{-3}{2}x + 4$ $m_1 = 2/3$

X

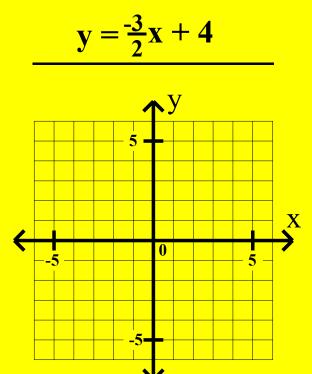
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 oblique line
 2x - 3y = 9

 y = mx + b -3y = -2x + 9

 $m_2 = -3/2$ -3y = -2x + 9

 b = 4 $y = \frac{2}{3}x - 3$
 $y = \frac{-3}{2}x + 4$ $m_1 = 2/3$



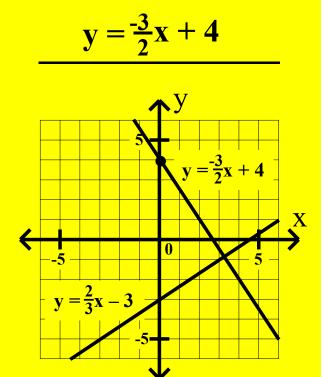
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 oblique line
 2x - 3y = 9

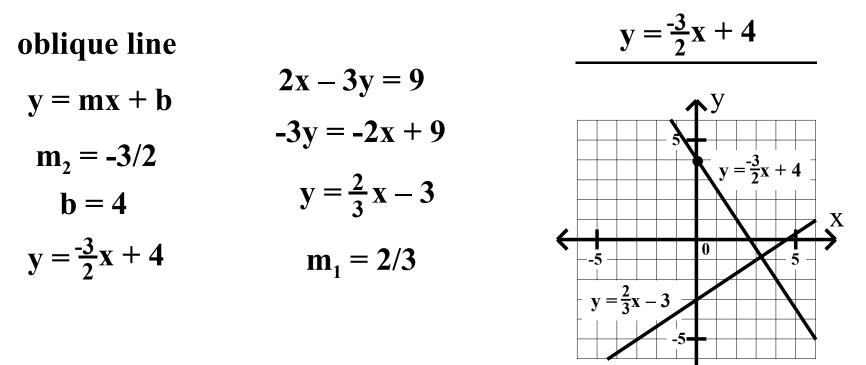
 y = mx + b -3y = -2x + 9

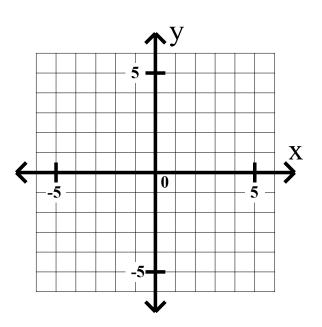
 $m_2 = -3/2$ -3y = -2x + 9

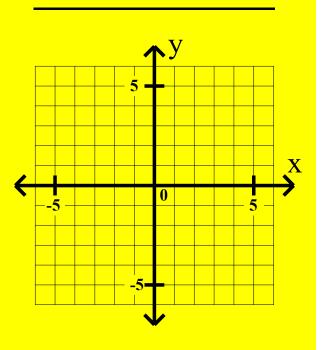
 b = 4 $y = \frac{2}{3}x - 3$
 $y = \frac{-3}{2}x + 4$ $m_1 = 2/3$

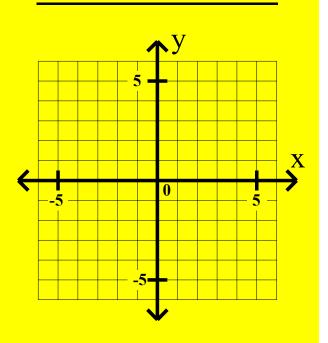


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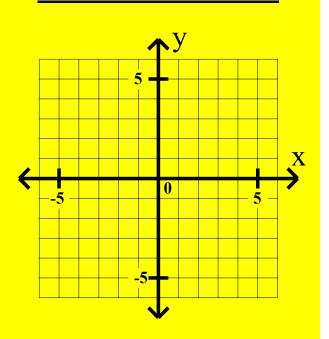








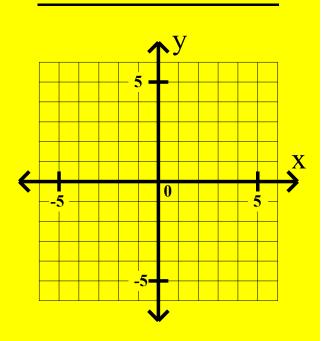
5. The line through (5, -2) perpendicular to 5x + 2y = -8
oblique line



5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$

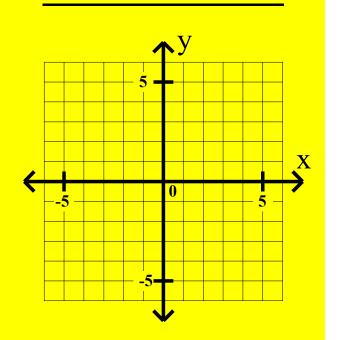


5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5\mathbf{x} + 2\mathbf{y} = -\mathbf{8}$$

2y =

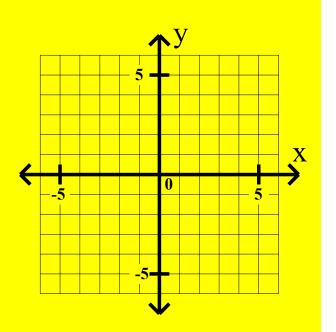


5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$

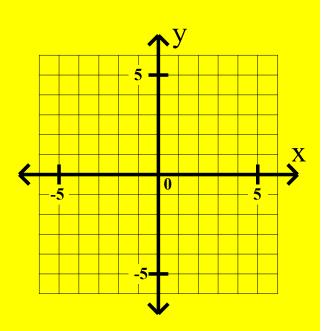
2y = -5x



5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$



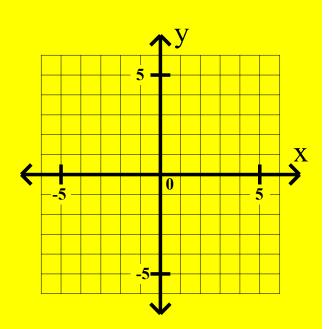
5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$

 $2y = -5x - 8$

 $\mathbf{v} =$

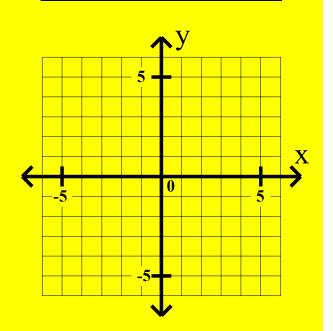


5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$
$$2y = -5x - 8$$

 $y = \frac{-3}{2}x$



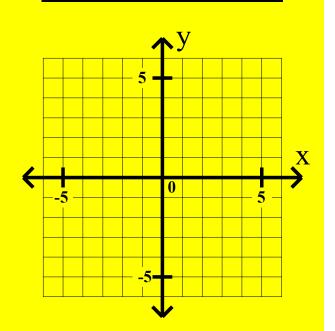
5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$

 $2y = -5x - 8$
 $y = \frac{-5}{2}y = 4$

2 -

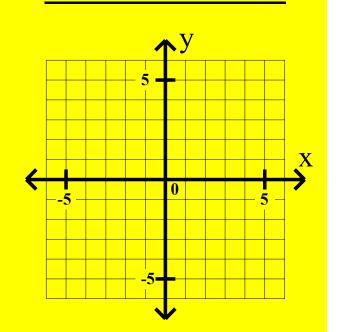


5. The line through (5, -2) perpendicular to 5x + 2y = -8

oblique line

$$5x + 2y = -8$$

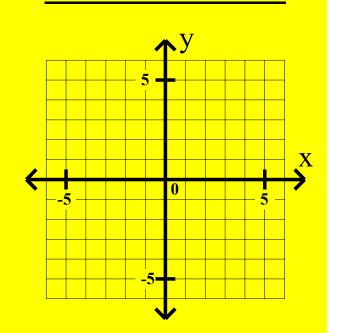
 $2y = -5x - 8$
 $y = \frac{-5}{2}x - 4$
 $m_1 = -5/2$



5. The line through (5, -2) perpendicular to 5x + 2y = -8 oblique line

$$5x + 2y = -8$$
$$2y = -5x - 8$$
$$y = \frac{-5}{2}x - 4$$

 $m_1 = -5/2$



5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b 5x + 2y = -8 2y = -5x - 8 $y = \frac{-5}{2}x - 4$ $m_1 = -5/2$

5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b $m_2 =$ 5x + 2y = -8 2y = -5x - 8 $y = \frac{-5}{2}x - 4$ $m_1 = -5/2$ y = -5/2

5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b $m_2 = 2/5$ y = -5x - 8 y = -5 - 4 $m_1 = -5/2$

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5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b $m_2 = 2/5$ b = ? $m_1 = -5/2$

5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b $m_2 = 2/5$ b = ? $y - y_1 = m(x - x_1)$ $m_1 = -5/2$

5. The line through (5, -2) perpendicular to 5x + 2y = -8oblique line y = mx + b $m_2 = 2/5$ b = ? $y - y_1 = m(x - x_1)$ y - 2 =5. The line through (5, -2) perpendicular to 5x + 2y = -8 2y = -5x - 8 $y = \frac{-5}{2}x - 4$ $m_1 = -5/2$

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5. The line through (5, -2) perpendicular to 5x + 2y = -8**oblique line** 5x + 2y = -8y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ **b** = ? X $y - y_1 = m(x - x_1)$ $m_1 = -5/2$ 0 $y - -2 = \frac{2}{5}(x - 5)$ y + 2 =

5. The line through (5, -2) perpendicular to 5x + 2y = -8**oblique line** 5x + 2y = -8y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ **b** = ? X $\mathbf{y} - \mathbf{y}_1 = \mathbf{m}(\mathbf{x} - \mathbf{x}_1)$ $m_1 = -5/2$ 0 $y - -2 = \frac{2}{5}(x - 5)$ $y + 2 = \frac{2}{5}x$

5. The line through (5, -2) perpendicular to 5x + 2y = -8**oblique line** $5\mathbf{x} + 2\mathbf{y} = -8$ y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ $\mathbf{b} = ?$ X $\mathbf{y} - \mathbf{y}_1 = \mathbf{m}(\mathbf{x} - \mathbf{x}_1)$ $m_1 = -5/2$ 0 $y - -2 = \frac{2}{5}(x - 5)$ $y + 2 = \frac{2}{5}x - 2$

5. The line through (5, -2) perpendicular to 5x + 2y = -8**oblique line** $5\mathbf{x} + 2\mathbf{y} = -8$ y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ **b** = ? X $\mathbf{y} - \mathbf{y}_1 = \mathbf{m}(\mathbf{x} - \mathbf{x}_1)$ $m_1 = -5/2$ 0 $y - -2 = \frac{2}{5}(x - 5)$ $y + 2 = \frac{2}{5}x - 2$ $\mathbf{v} =$

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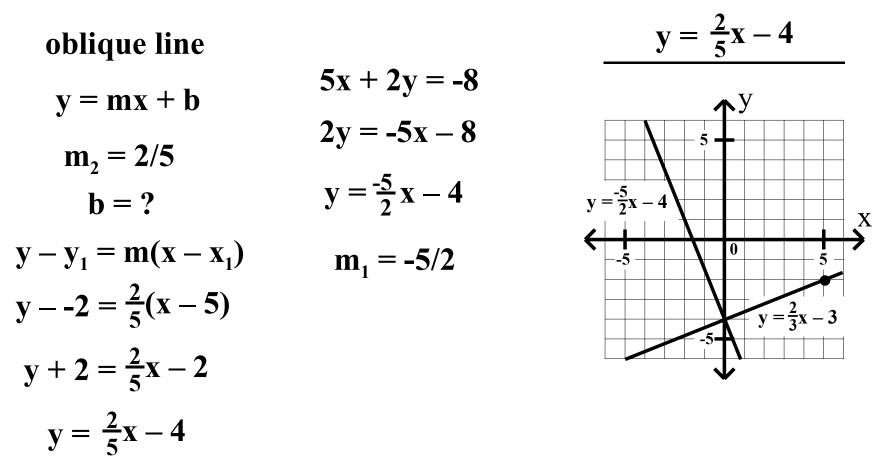
5. The line through (5, -2) perpendicular to 5x + 2y = -8**oblique line** $5\mathbf{x} + 2\mathbf{y} = -8$ y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ $\mathbf{b} = ?$ X $y - y_1 = m(x - x_1)$ 0 $m_1 = -5/2$ $y - -2 = \frac{2}{5}(x - 5)$ $y + 2 = \frac{2}{5}x - 2$ $y = \frac{2}{5}x - 4$

5. The line through (5, -2) perpendicular to 5x + 2y = -8

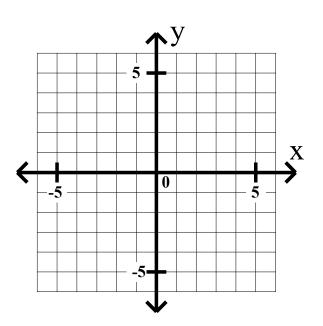
 $y = \frac{2}{5}x - 4$ **oblique line** 5x + 2y = -8 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ 2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ $\mathbf{b} = ?$ X $y - y_1 = m(x - x_1)$ 0 $m_1 = -5/2$ $y - -2 = \frac{2}{5}(x - 5)$ $y + 2 = \frac{2}{5}x - 2$ $y = \frac{2}{5}x - 4$

5. The line through (5, -2) perpendicular to 5x + 2y = -8

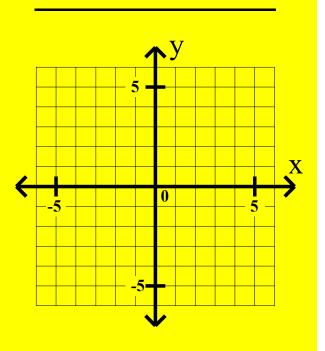
 $y = \frac{2}{5}x - 4$ **oblique line** 5x + 2y = -8y = mx + b2y = -5x - 8 $m_2 = 2/5$ $y = \frac{-5}{2}x - 4$ **b** = ? $y = \frac{5}{2}x - 4$ X $y - y_1 = m(x - x_1)$ 0 $m_1 = -5/2$ $y - -2 = \frac{2}{5}(x - 5)$ $y = \frac{2}{5}x - 4$ $y + 2 = \frac{2}{5}x - 2$ $y = \frac{2}{5}x - 4$



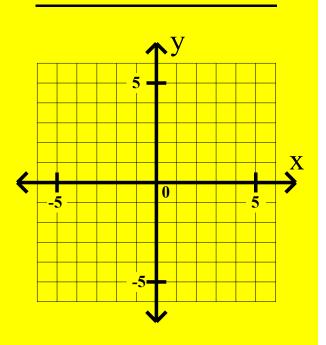
6. The line through (1, -3) perpendicular to 3x - y = 2



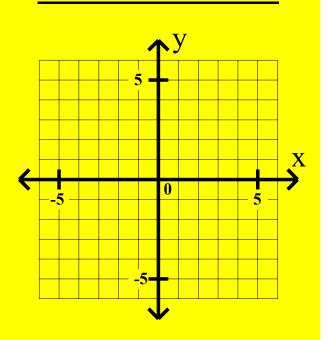
6. The line through (1, -3) perpendicular to 3x - y = 2



6. The line through (1, -3) perpendicular to 3x - y = 2

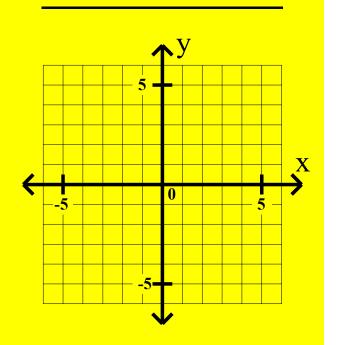


6. The line through (1, -3) perpendicular to 3x - y = 2oblique line

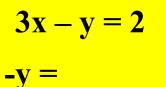


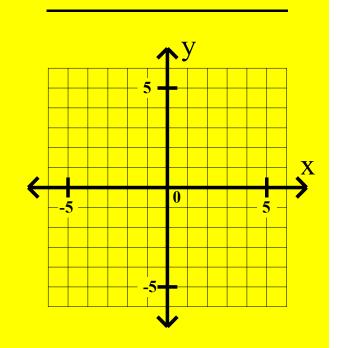
6. The line through (1, -3) perpendicular to 3x - y = 2

$$3x - y = 2$$

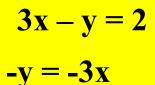


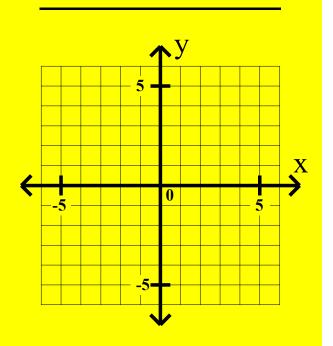
6. The line through (1, -3) perpendicular to 3x - y = 2





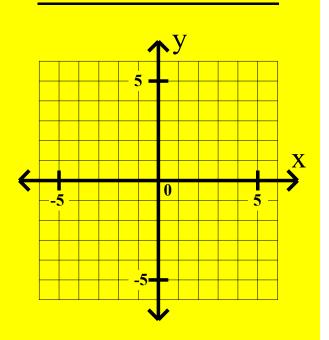
6. The line through (1, -3) perpendicular to 3x - y = 2





6. The line through (1, -3) perpendicular to 3x - y = 2

$$3x - y = 2$$
$$-y = -3x + 2$$

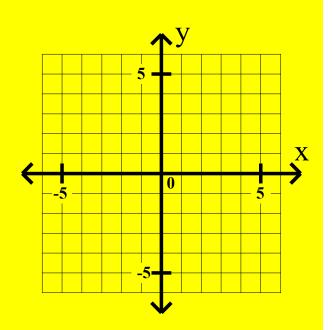


6. The line through (1, -3) perpendicular to 3x - y = 2

oblique line

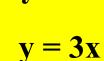
$$3x - y = 2$$
$$-y = -3x + 2$$

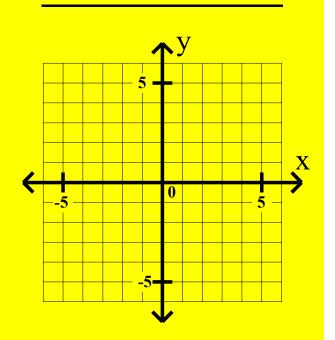
 $\mathbf{v} =$



6. The line through (1, -3) perpendicular to 3x - y = 2

$$3x - y = 2$$
$$-y = -3x + 2$$



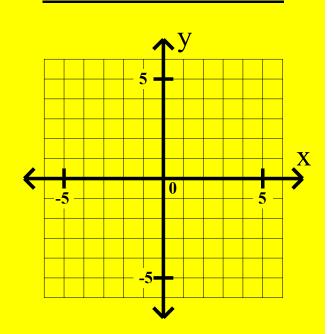


6. The line through (1, -3) perpendicular to 3x - y = 2

$$3x - y = 2$$

$$-y = -3x + 2$$

$$y = 3x - 2$$

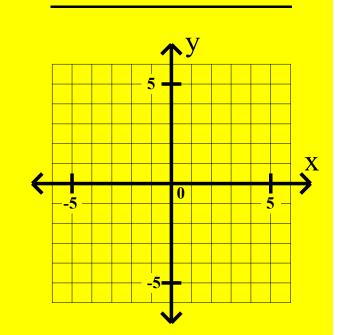


6. The line through (1, -3) perpendicular to 3x - y = 2

oblique line

$$3x - y = 2$$
$$-y = -3x + 2$$
$$y = 3x - 2$$

 $m_1 = 3$

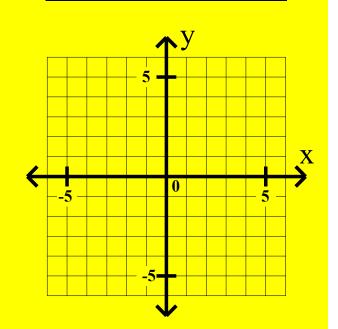


6. The line through (1, -3) perpendicular to 3x - y = 2

oblique line

$$3x - y = 2$$
$$-y = -3x + 2$$
$$y = 3x - 2$$

 $m_1 = 3$



6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b y = -3x + 2 y = 3x - 2 $m_1 = 3$

6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b $m_2 =$ y = 3x - 2 $m_1 = 3$

X

6. The line through (1, -3) perpendicular to 3x - y = 2

oblique line
y = mx + b
 $m_2 = -1/3$ 3x - y = 2
-y = -3x + 2
y = 3x - 2 $\checkmark y$
= -5 $m_1 = 3$ $m_1 = 3$

X

6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b $m_2 = -1/3$ 3x - y = 2 -y = -3x + 2 y = 3x - 2 $m_1 = 3$

6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b $m_2 = -1/3$ b = ? $m_1 = 3$

X

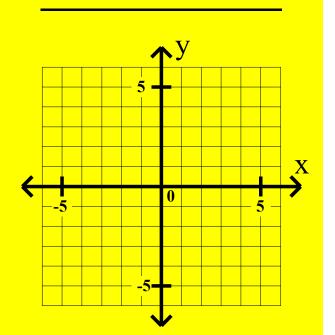
6. The line through (1, -3) perpendicular to 3x - y = 2

oblique line

y = mx + b $m_{x} = -1/3$ 3x - y = 2-y = -3x + 2

$$y = 3x - 2$$

 $y - y_1 = m(x - x_1)$ $m_1 = 3$



6. The line through (1, -3) perpendicular to 3x - y = 2

 oblique line
 3x - y = 2

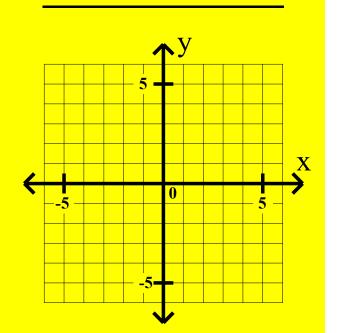
 y = mx + b 3x - y = 2

 $m_2 = -1/3$ -y = -3x + 2

 b = ? y = 3x - 2

 $y - y_1 = m(x - x_1)$ $m_1 = 3$

 y - -3 = y = 3x - 2



6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b $m_2 = -1/3$ b = ? $y - y_1 = m(x - x_1)$ $y - -3 = -\frac{1}{3}$

X

6. The line through (1, -3) perpendicular to 3x - y = 2oblique line y = mx + b $m_2 = -1/3$ b = ? $y - y_1 = m(x - x_1)$ $m_1 = 3$

 $y - -3 = \frac{-1}{3}(x - 1)$

X

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** $3\mathbf{x} - \mathbf{y} = 2$ y = mx + b-y = -3x + 2 $m_2 = -1/3$ y = 3x - 2**b** = ? X $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ y + 3 =

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** $3\mathbf{x} - \mathbf{y} = 2$ y = mx + b-y = -3x + 2 $m_2 = -1/3$ y = 3x - 2**b** = ? X $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x$

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** 3x - y = 2y = mx + b-y = -3x + 2 $m_2 = -1/3$ y = 3x - 2**b** = ? X $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** 3x - y = 2y = mx + b $-\mathbf{y} = -3\mathbf{x} + 2$ $m_2 = -1/3$ y = 3x - 2**b** = ? X $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$ **y** =

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** 3x - y = 2y = mx + b-y = -3x + 2 $m_2 = -1/3$ y = 3x - 2**b** = ? X $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$ $y = \frac{-1}{3}x$

6. The line through (1, -3) perpendicular to 3x - y = 2**oblique line** 3x - y = 2y = mx + b $-\mathbf{y} = -3\mathbf{x} + 2$ $m_2 = -1/3$ y = 3x - 2**b** = ? X $\mathbf{y} - \mathbf{y}_1 = \mathbf{m}(\mathbf{x} - \mathbf{x}_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$ $y = \frac{-1}{3}x - \frac{8}{3}$

6. The line through (1, -3) perpendicular to 3x - y = 2

 $y = \frac{-1}{3}x - \frac{8}{3}$ **oblique line** 3x - y = 2 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ -y = -3x + 2 $m_2 = -1/3$ y = 3x - 2 $\mathbf{b} = ?$ $y - y_1 = m(x - x_1)$ 0 $m_1 = 3$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$ $y = \frac{-1}{3}x - \frac{8}{3}$

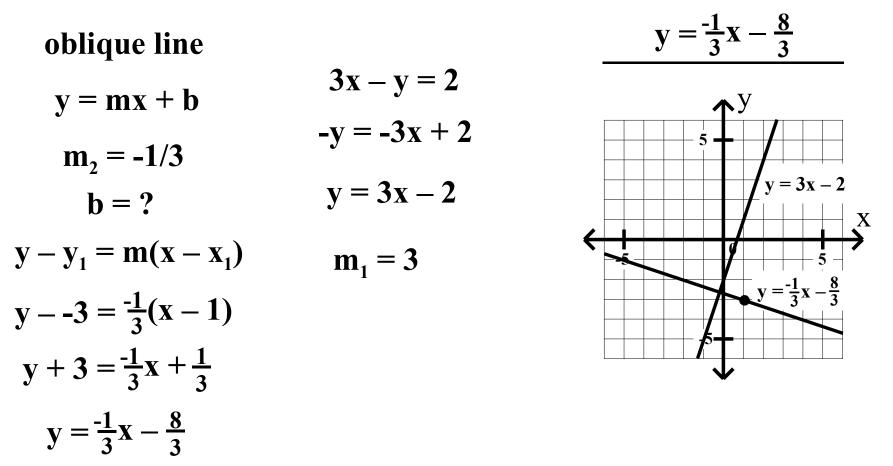
X

y = 3x - 2

6. The line through (1, -3) perpendicular to 3x - y = 2

 $y = \frac{-1}{3}x - \frac{8}{3}$ **oblique line** 3x - y = 2 $\mathbf{y} = \mathbf{m}\mathbf{x} + \mathbf{b}$ -y = -3x + 2 $m_2 = -1/3$ y = 3x - 2 $\mathbf{b} = ?$ $y - y_1 = m(x - x_1)$ $m_1 = 3$ $y = \frac{-1}{3}$ $y - -3 = \frac{-1}{3}(x - 1)$ $y + 3 = \frac{-1}{3}x + \frac{1}{3}$ $y = \frac{-1}{3}x - \frac{8}{3}$

6. The line through (1, -3) perpendicular to 3x - y = 2



6. The line through (1, -3) perpendicular to 3x - y = 2

