

ALL work must be shown for credit!!

Simplify each expression.

1) $-1 - 7(2a + 6)$

2) $9(-8 - 5x) - 3x$

3) $3 - 9(1 - 6n)$

4) $7v + 5(-2 + 6v)$

5) $6(-9 - 7n) - 4$

Evaluate each using the values given.

6) $x - x - y - x$; use $x = 5$, and $y = 6$

7) $\frac{k(h - k)}{6}$; use $h = -6$, and $k = 6$

8) $\frac{m - p^2}{4}$; use $m = -4$, and $p = -2$

9) $9z - (x - z)$; use $x = -8$, and $z = 8$

10) $r - (rq + p)$; use $p = 7$, $q = -2$, and $r = 8$

Evaluate each expression.

11) $5 - 4 - \left(-\frac{27}{3}\right)$

12) $9 - (-2) + 7 \cdot 9$

13) $(-1)^2 + 2 \cdot (-10)$

14) $(6 + 4) \cdot 4 - 1$

$$15) 2 - 10 \cdot (-2) + 3$$

$$16) -4 - -4 + 5$$

$$17) (-5 - 2) \cdot 6$$

$$18) -2 \cdot -2 + 4$$

$$19) (-2 \div 2)^2$$

$$20) -3 \cdot 3 + 5$$

Solve each equation. Remember: simplify, combine, and then cancel!

$$21) 6 = 5x + 6 - 5$$

$$22) -6b - 2b = 8$$

$$23) x - 1 + 4 = 7$$

$$24) -5 + 4b + 6b = -5$$

$$25) 8v - 4 = -8 + 6(6v - 4)$$

$$26) -2 - (1 - 3n) = -3 + 7n$$

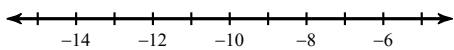
$$27) -4x + 36 = 4(5 - 2x) + 2x$$

$$28) -4(-7 - 7n) = -32 + 8n$$

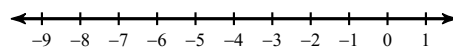
$$29) -3x + 5 = -7(2x - 7)$$

Solve each inequality and graph its solution.

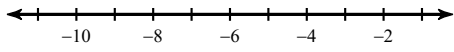
$$30) -4(-2r + 5) < -84$$



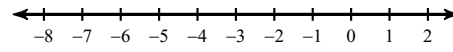
$$31) -6(6x - 7) > 222$$



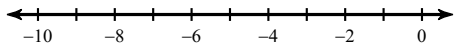
$$32) -5(1 - 5x) - 2 \geq -157$$



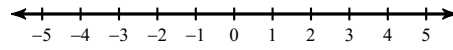
$$33) -4(1 - 8p) + 7 \leq -93$$



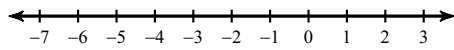
$$34) 6(4 - 7x) + 3x < 180$$



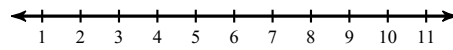
$$35) 5(3x + 3) + x \geq -24 + 3x$$



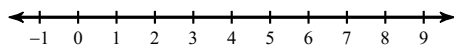
$$36) -5 - (n + 2) \geq 18 + 4n$$



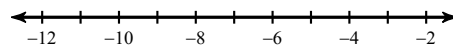
$$37) -5(n + 2) \leq -34 - n$$



$$38) -6r - 4(7 - 7r) < -4 - 2r$$



$$39) -3 + 7(k + 3) > 11 + 6k$$



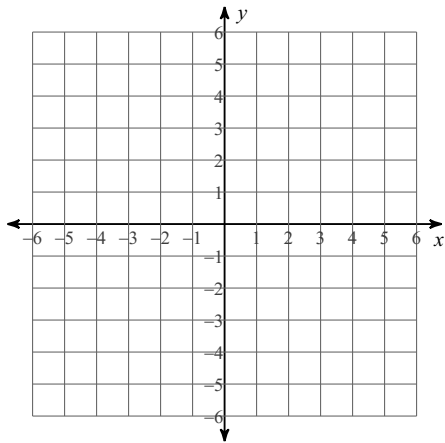
Solve each proportion. Leave your answer in fraction form.

$$40) \frac{8}{v+7} = \frac{7}{8}$$

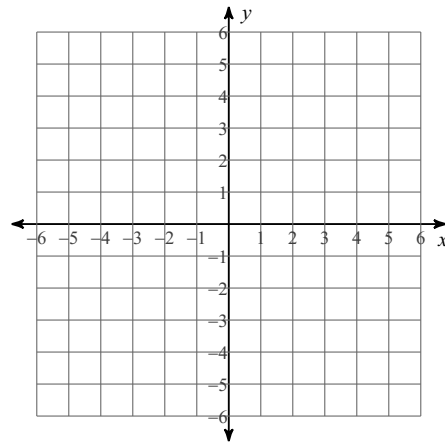
$$41) \frac{10}{n-3} = \frac{3}{8}$$

Sketch the graph of each line.

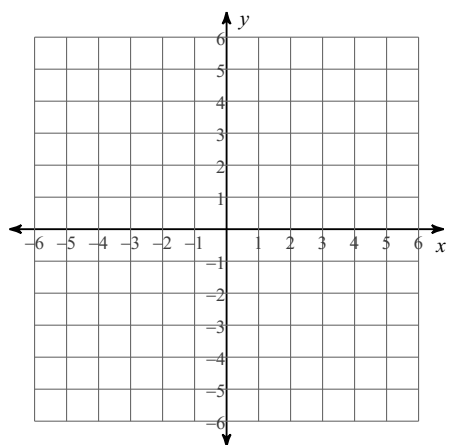
$$42) -y = -5$$



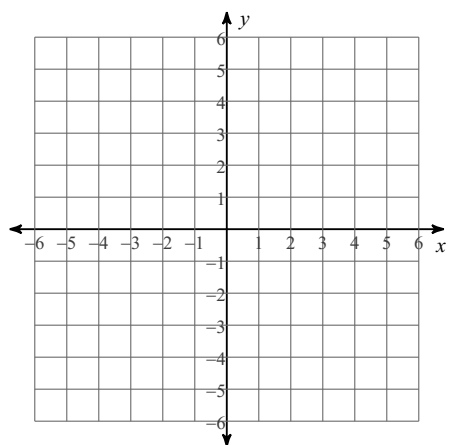
$$43) -1 = x + y$$



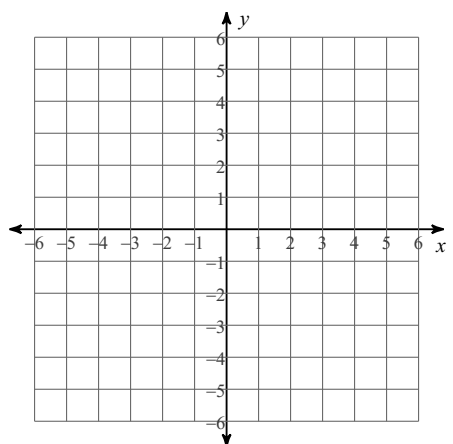
44) $y + 7x = -2$



45) $2y = 6x - 8$

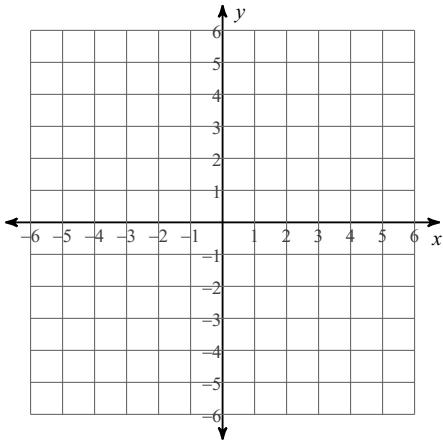


46) $x + 3y = -6$

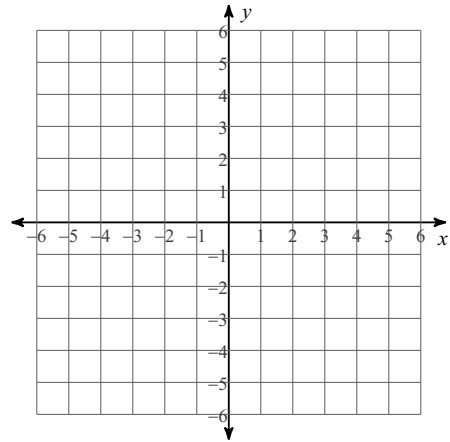


Sketch the graph of each linear inequality.

47) $x + 2y < -4$



48) $x + y \geq -4$



49) $2x + y < 0$

