

Inequality Practice

Solve each compound inequality.

1) $k - 6 < -5$ and $3 + k > 3$

2) $-5m \leq 40$ and $5m < -35$

3) $-10v \leq -30$ or $v + 10 < 11$

4) $-45 \leq 5v \leq -10$

5) $n + 2 > -2$ and $n + 9 < 16$

6) $4p + 5 < 5 + 8p \leq 4p + 9$

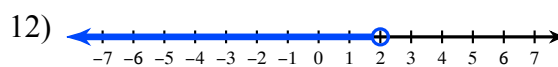
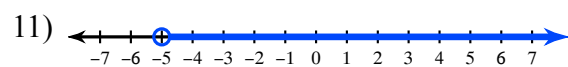
$$7) -4v + 8 \leq -4 - 2v \text{ and } -3v - 10 < -4v + 10$$

$$8) -10x + 1 \leq -5 - 7x \text{ or } -2x - 5 > 3x + 5$$

$$9) \frac{21}{5}x + \frac{1}{2} < -\frac{1}{3}x - \frac{5}{3} \leq \frac{14}{3}x + \frac{3}{2}$$

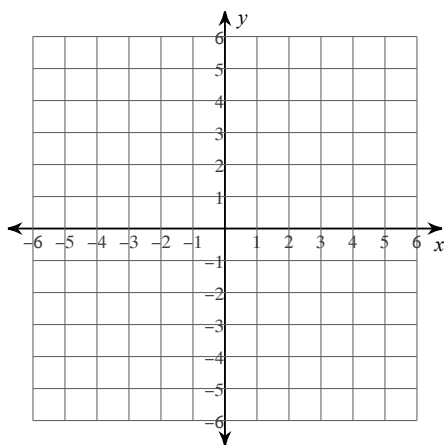
$$10) -\frac{11}{10}p - \frac{5}{2} > \frac{3}{2}p + \frac{26}{7} \text{ or } -\frac{8}{3}p - \frac{5}{8} < \frac{7}{2}p - \frac{18}{5}$$

Write an inequality for each graph.

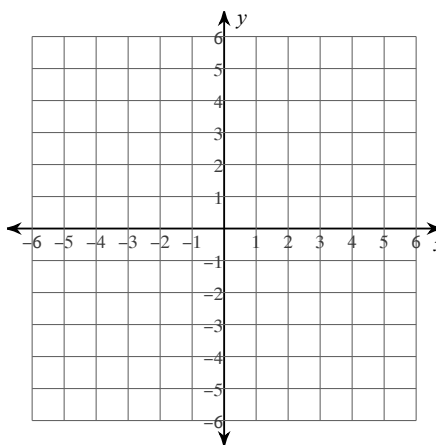


Sketch the graph of each linear inequality.

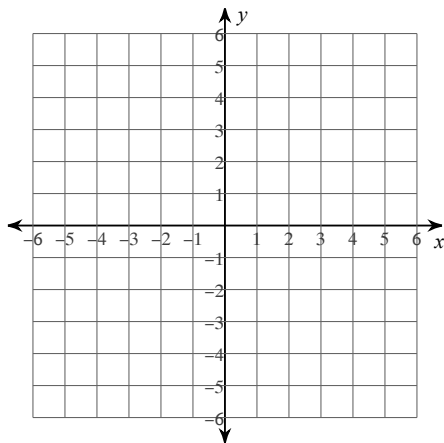
13) $y \leq -\frac{7}{2}x - 4$



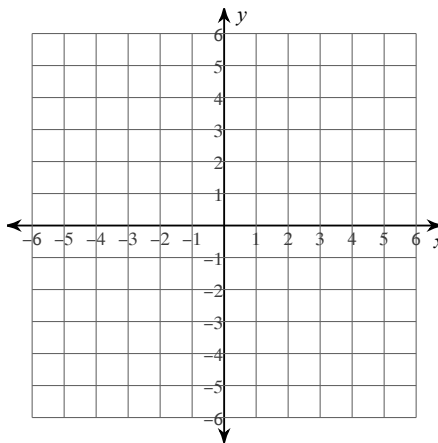
14) $y < \frac{4}{5}x - 4$



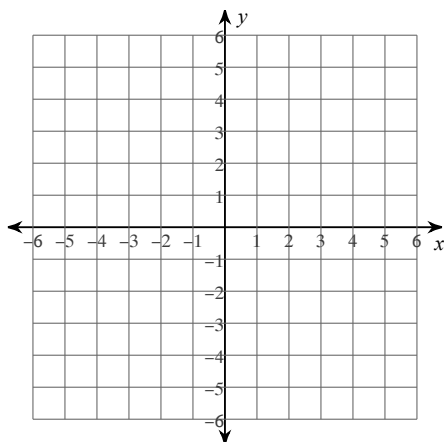
15) $y \leq x - 1$



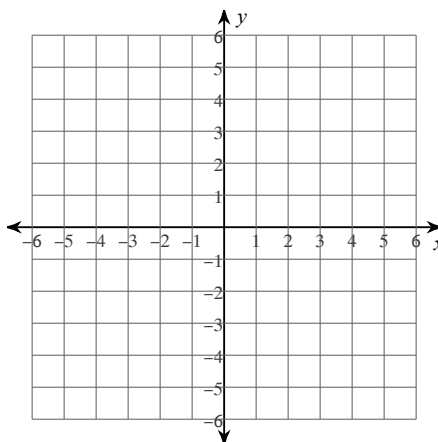
16) $x < 5$



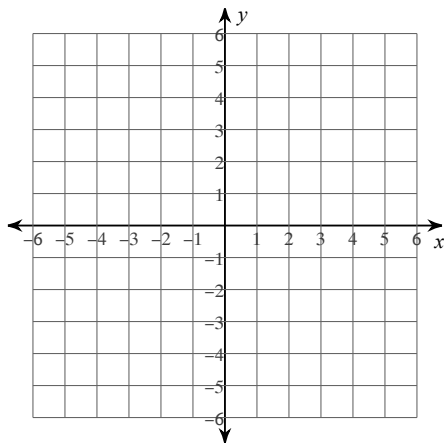
17) $y \leq \frac{4}{3}x - 1$



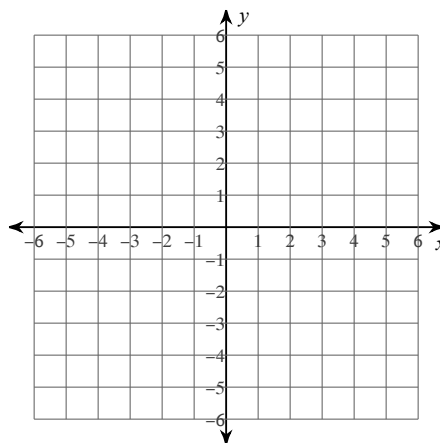
18) $y \leq -\frac{1}{5}x - 4$



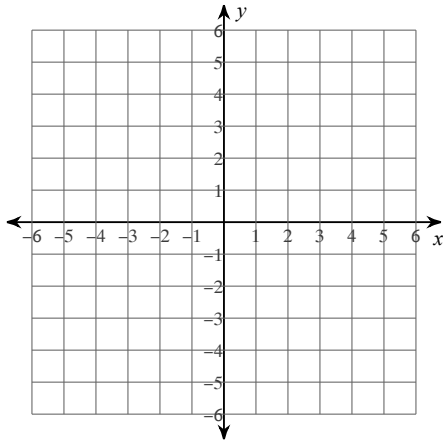
19) $y < -5x$



20) $y < -\frac{9}{2}x - 5$



$$21) y \geq -\frac{2}{5}x - 1$$



$$22) y \leq 2$$

