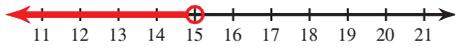


## HW 13 - Inequalities Review

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**Solve each inequality and graph its solution.**

1)  $6 > \frac{m}{5} + 3$



$m < 15$

2)  $-5 \geq -2 + \frac{n}{6}$



$n \leq -18$

3)  $152 \leq -5(3 - 5x) - 8$



$x \geq 7$

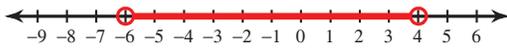
4)  $7 - 8x \geq 11 - 4x$



$x \leq -1$

**Solve each compound inequality and graph its solution.**

5)  $10k + 5 > -55$  and  $6k + 5 < 29$



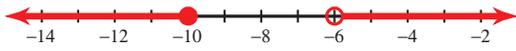
$-6 < k < 4$

6)  $10p + 10 < 80$  and  $5p - 4 \geq -49$



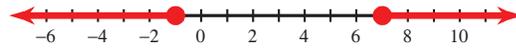
$-9 \leq p < 7$

7)  $7n - 2 \leq -72$  or  $-1 + 5n > -31$



$n \leq -10$  or  $n > -6$

8)  $7x - 7 \leq -14$  or  $10x - 6 \geq 64$



$x \leq -1$  or  $x \geq 7$

9)  $-30 \leq 10 - 5p \leq 60$



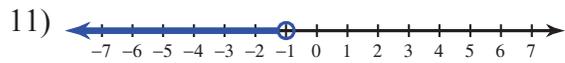
$-10 \leq p \leq 8$

10)  $-57 < -6m + 3 < 57$

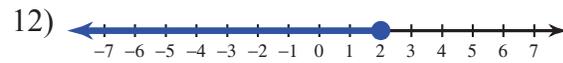


$-9 < m < 10$

**Write an inequality for each graph.**



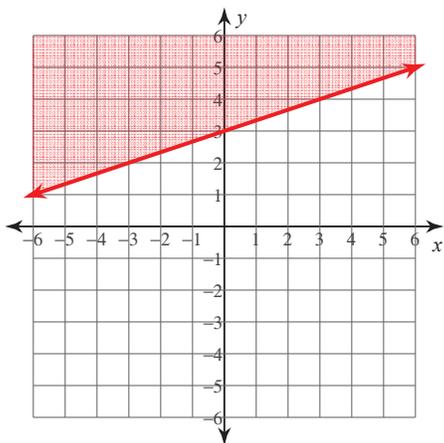
$p < -1$



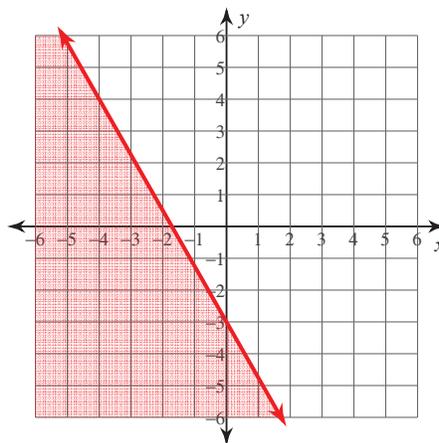
$n \leq 2$

Sketch the graph of each linear inequality.

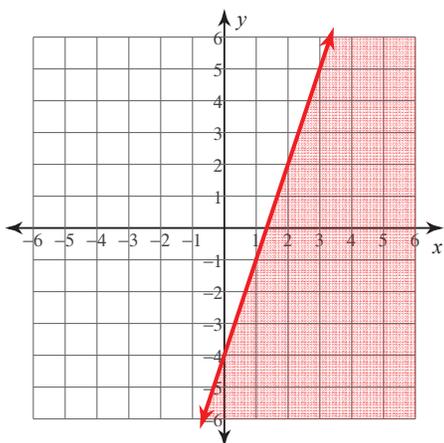
13)  $y \geq \frac{1}{3}x + 3$



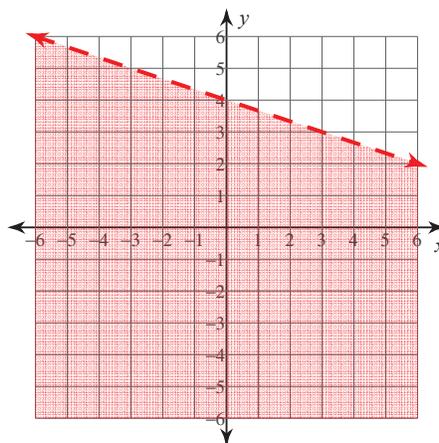
14)  $y \leq -\frac{7}{4}x - 3$



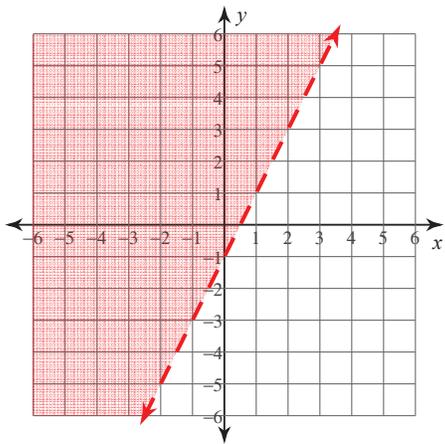
15)  $y \leq 3x - 4$



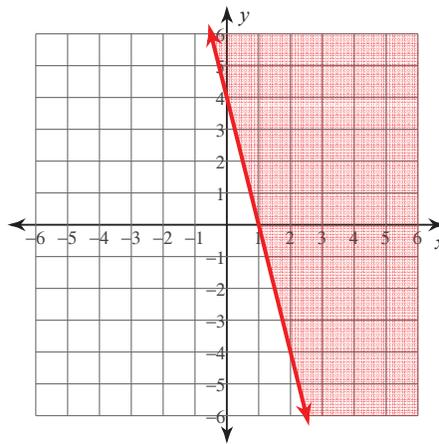
16)  $y < -\frac{1}{3}x + 4$



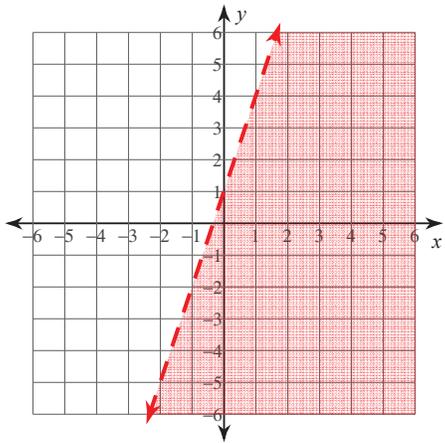
17)  $2x - y < 1$



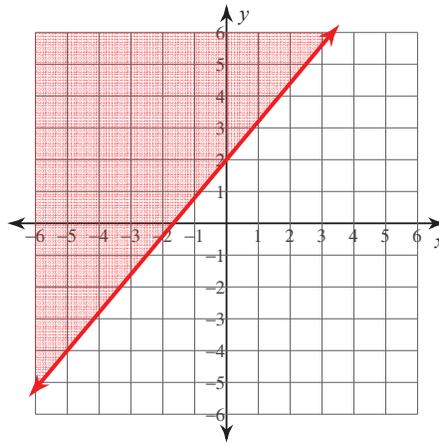
18)  $4x + y \geq 4$



19)  $3x - y > -1$



20)  $6x - 5y \leq -10$



**Solve the following word problems using an inequality. Be sure you follow the steps: Define a variable, write an inequality, solve the inequality and answer the question in a full sentence.**

21) 1. The student council is selling candy grams for the holiday and Sally has to sell at least 50 candy grams this week. She has already sold 37 candy grams, how many more does she need to sell to meet her goal?

22) Jonathan is trying to save up money to buy a used car that costs \$ 2700. He has \$ 1200 saved up already and his grandparents have him \$550. How much more money does he need?

The dot next to the choice indicates that it is the answer. The dot next to the choice indicates that it is the answer.

23) Danielle is bringing in cupcakes for her office. She wants to bring in enough so each person can have 3 cupcakes. If there are 10 people in her office, how many cupcakes does she need to make?

24) Tommy makes \$10 for each drive way he shovels. He already has \$75 in the bank, but wants \$525 for an ipad. How many drive ways does he need to shovel this winter to buy the ipad?

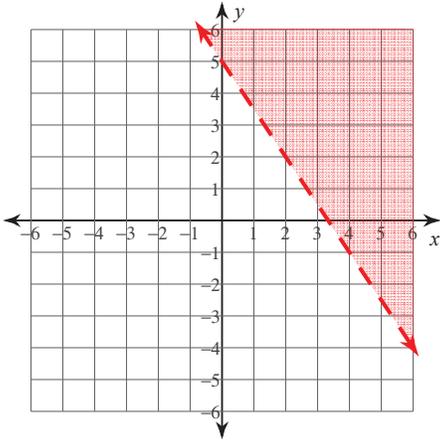
The dot next to the choice indicates that it is the answer. The dot next to the choice indicates that it is the answer.

25) Matt wants to get pizza for a party is throwing. He is going to invite 25 people and he wants enough pizza so that everyone can have 3 pieces. If a large pizza has 12 pieces in it, how many pizzas should he buy?

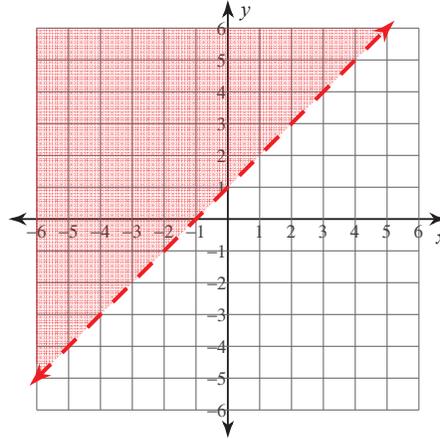
The dot next to the choice indicates that it is the answer.

Sketch the graph of each linear inequality.

26)  $y > -\frac{3}{2}x + 5$



27)  $y > x + 1$



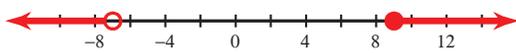
Write an inequality for each graph.



$n \leq 2$

Solve each compound inequality and graph its solution.

29)  $n - 5 \geq 4$  or  $n - 9 < -16$



$n \geq 9$  or  $n < -7$

30)  $-1 \leq a + 5 \leq 11$



$-6 \leq a \leq 6$