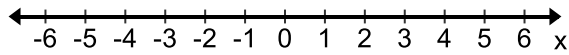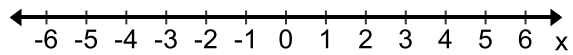Solve and graph each inequality.
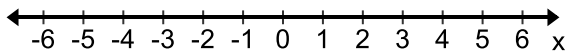
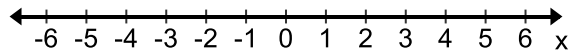1) $\frac{x}{2} \geq -3$ 2) $\frac{x+6}{4} \leq 5$

```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```
```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```

3) $-4x < -12$ 4) $4x + 3 > -5$

```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```
```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```

5) $-2(x - 4) \leq -10$ 6) $\frac{4}{5}x \leq -8$

```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```
```
←———————————————————→
  -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  x
```
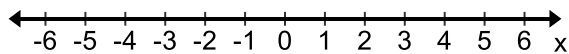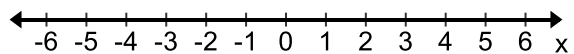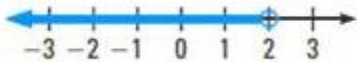
Write the inequality represented by each graph.

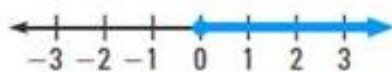7) _____   8) _____

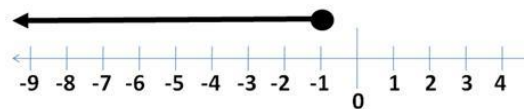
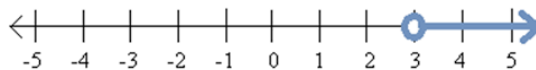
9) _____   10) _____

11) Write and solve an inequality to represent the following situation.
   Alex wants to earn at least $50 to put in his savings. He already has $14 and he earns $9 a week mowing his neighbor's lawn.

12) If Alex mows his neighbor's lawn for 4 weeks, will he have earned at least $50? Explain how you know.

13) Will the following side lengths form a triangle? Explain how you know.
   6 cm, 8 cm, and 12 cm

14) Will the following side lengths form a triangle? Explain how you know.
   1 cm, 6 cm, and 9 cm