Equation vs Inequality

both sides are equal

ONLY ONE ANSWER

ex.

$$\frac{2x}{2} = \frac{10}{2}$$

$x = 5$

one side is bigger
than the other
MULTIPLE ANSWERS

$x > 6$

X could be 7, 8, 6.5, 300

GREATER THAN AND LESS THAN SYMBOLS
(the mouth opens to the bigger thing)

BIG > small

$$X < 4$$

X is less than 4

$$X > -3$$

X is greater than -3

$x < 3$ x is less than 3

3 is NOT a possible answer

$x > -4$ x is greater than -4

$x \leq 3/4$ x is less than or equal to 3/4

3/4 is a possible answer

$x \geq 5.4$ x is greater than or equal to 5.4

Contest entrants must be at least 18 years of age

$x \geq 18$

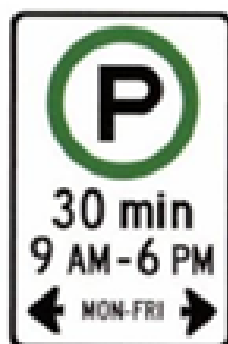The temperature has been below -5 degrees for the last week

$x < -5$

You must have 7 items or less to use the express checkout line at Sobeys

$7 \geq x$ same thing

$x \leq 7$

Scientists have discovered over 400 species of dinosaurs

$x > 400$

P 30 min 9 AM – 6 PM MON-FRI

$x \leq 30$

USE A NUMBER LINE TO SHOW THE ANSWER TO AN INEQUALITY

Hollow dots are for "greater than" and "less than"
Solid dots are for "greater than or equal to" or "less than or equal to"

You must use an arrow at the other end to show if it keeps going

$a > 3$

```
  ←—+————+———+————+———+———+———+———+———●———+————→
   -5    -4   -3   -2   -1    0    1    2    3    4    5
```

$b \leq -5$

```
  ←●————+————+———+———+———+———+———+———+———→
   -7    -6   -5   -4   -3   -2   -1    0    1    2
```

Write the inequality and 4 possible solutions

$x > -5$

possible answers: $-4, -3, 1, 2$

$x \geq -4$

$-4, 100, 666, 3$

$-2 > x$

$-3, -4, -5, -6$