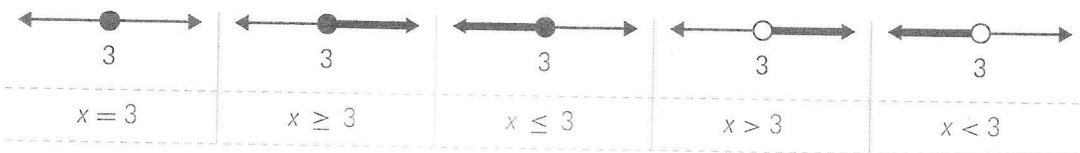


WORKSHEET 4.1: GRAPHING ON A NUMBER LINE

Follow the steps below to graph equations and inequalities with one variable on a number line:

1. Find the point with the given coordinate on the number line.
2. Determine the type of circle to draw.
 - Use a closed circle when x is \geq , \leq , or $=$ to a number.
 - Use an open circle when x is $>$, $<$, or \neq to a number.
3. Draw an arrow in the direction of the numbers that satisfy the inequality.

EXAMPLES



DIRECTIONS: Graph each equation or inequality on a number line.

1. $x > -4$ 2. $x \leq 0$ 3. $x \geq 2$ 4. $x < -1$ 5. $x = -2$

6. $7 < x$ 7. $-6 < x$ 8. $5 \geq x$ 9. $x = 1$ 10. $0 < x$



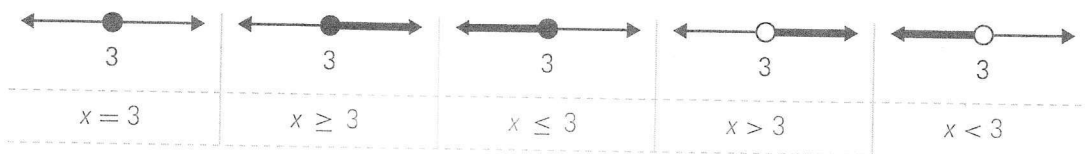
CHALLENGE: Describe the graph of $x \neq 5$.

WORKSHEET 4.1: GRAPHING ON A NUMBER LINE

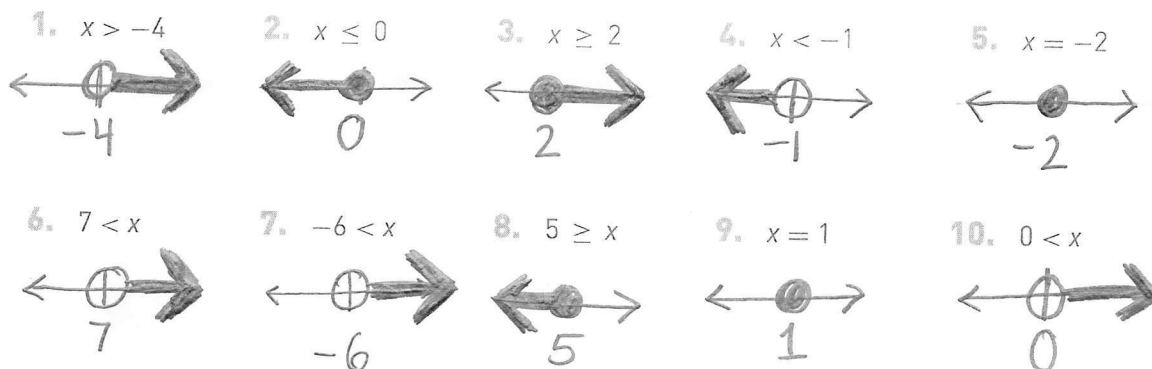
Follow the steps below to graph equations and inequalities with one variable on a number line:

1. Find the point with the given coordinate on the number line.
2. Determine the type of circle to draw.
 - Use a closed circle when x is \geq , \leq , or $=$ to a number.
 - Use an open circle when x is $>$, $<$, or \neq to a number.
3. Draw an arrow in the direction of the numbers that satisfy the inequality.

EXAMPLES



DIRECTIONS: Graph each equation or inequality on a number line.



CHALLENGE: Describe the graph of $x \neq 5$.

Because the inequalities are not equal to 5, the graph is a number line with an open circle on the point paired with 5. The line is shaded to the right of 5 and to the left of 5.

