

# Inequalities and Their Graphs Bell Work

Check whether the given number is a solution of the inequality.

1.  $2x - 12 < 0$   $x = 6$

2.  $x^2 + 3 > 27$   $x = 5$

3.  $19 - 2x > 7$   $x = 5$

4.  $x(12 - x) < 50$   $x = 4$

Write each algebraic expression from the verbal expression.

5.  $y$  is greater than or equal to 6 times  $x$ .

6. 16 is greater than 32 plus  $x$ .

7. 9 is less than or equal to 21 minus  $x$ .

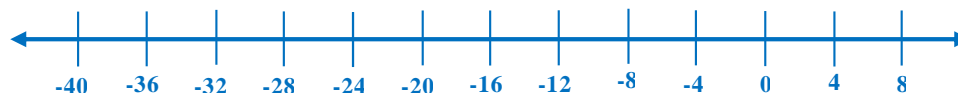
8.  $x$  is less than 11 minus  $y$ .

Graph each inequality.

9.  $y < 8$



10.  $y \geq -16$



# Inequalities and Their Graphs Bell Work

**ANSWER**

Check whether the given number is a solution of the inequality.

1.  $2x - 12 < 0$   $x = 6$

$2(6) - 12 < 0$

$12 - 12 < 0$

$0 < 0$

2.  $x^2 + 3 > 27$   $x = 5$

$5^2 + 3 > 27$

$25 + 3 > 27$

$28 > 27$

3.  $19 - 2x > 7$   $x = 5$

$19 - 2(5) > 7$

$19 - 10 > 7$

$9 > 7$

4.  $x(12 - x) < 50$   $x = 4$

$4(12 - 4) < 50$

$4(8) < 50$

$32 < 50$

Write each algebraic expression from the verbal expression.

5.  $y$  is greater than or equal to 6 times  $x$ .  $y \geq 6 \cdot x$

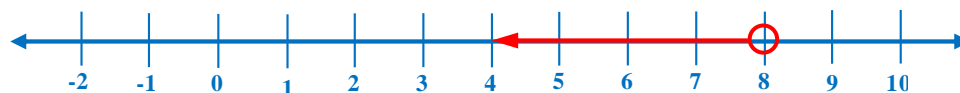
6. 16 is greater than 32 plus  $x$ .  $16 > 32 + x$

7. 9 is less than or equal to 21 minus  $x$ .  $9 \leq 21 - x$

8.  $x$  is less than 11 minus  $y$ .  $x < 11 - y$

Graph each inequality.

9.  $y < 8$



10.  $y \geq -16$

