PRACTICE

Use the inequality to express in words, graph on the number, and select values that are in the solution set.

1.

Inequality: $x < 6$

Express in words:

x is a number less than six

Graph on number line:

Circle all values of x that make the inequality true:

$x = 8$ (x = 2) $x = 6$ (x = −4)

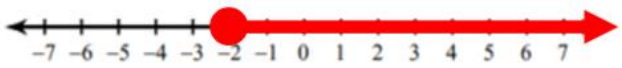
2.

Inequality: $n \geq -2$

Express in words:

n is a number greater than or equal to negative two

Graph on number line:



Circle all values of n that make the inequality true:

(n = 3) (n = 0) $n = -5$ (n = −2)

Use the verbal to write the inequality, graph on the number, and select values that are in the solution set.

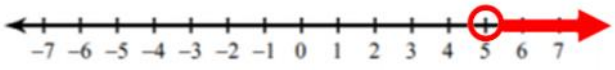
3.

Inequality: $x > 5$

Express in words:

y is a number greater than five

Graph on number line:



Circle all values of y that make the inequality true:

(y = 8) $y = 2$ $y = 5$ $y = -4$

4.

Inequality: $x \leq 1$

Express in words:

h is a number less than or equal to one

Graph on number line:

Circle all values of h that make the inequality true:

$h = 3$ (h = 0) (h = −5) (h = 1)

Use the number line to write the inequality, express in words, and select values that are in the solution set.

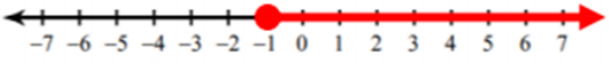
5.

Inequality:
(use x as the variable) $x \geq -1$

Express in words:

x is a number greater than or equal to negative one

Graph on number line:



Circle all values of x that make the inequality true:

(x = 3) (x = 0) $x = -5$ (x = −1)

Rewrite the inequality so that the variable is on the left side. Then graph on the number line.

6. $3 > x$

$x < 3$

7. $-4 \leq y$

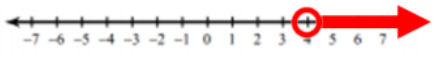
$y \geq -4$

8. $0 < h$

$h > 0$

Graph the inequalities on the number line. Determine if the point is in the solution set.

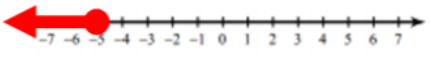
9. $x > 4$



Is $x = 5$ in the solution set?

Yes

10. $g \leq -5$



Is $g = 0$ in the solution set?

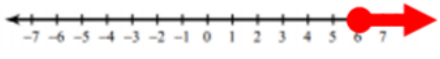
No

11. $t < 1$

Is $t = 3$ in the solution set?

No

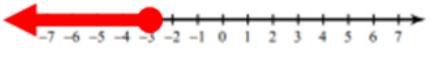
12. $6 \leq n$



Is $n = -2$ in the solution set?

No

13. $-3 \geq b$



Is $b = -3$ in the solution set?

Yes

14. $p \neq 2$

Is $p = 4$ in the solution set?

Yes

Write an inequality for each graph (use n as your variable). Determine if the point is in the solution set.

15. $n \geq -3$

Is $n = 5$ in the solution set?

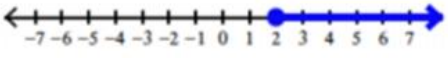
Yes

16. $n < 1$

Is $n = 1$ in the solution set?

No

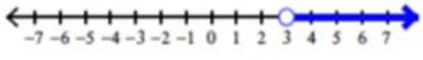
17. $n \geq 2$



Is $n = 0$ in the solution set?

No

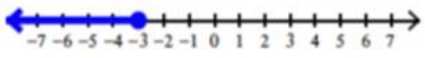
18. $n > 3$



Is $n = 6$ in the solution set?

Yes

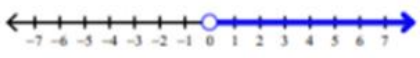
19. $n \leq -3$



Is $n = -5$ in the solution set?

Yes

20. $n > 0$



Is $n = 3$ in the solution set?

Yes