

pg. 62 2, 7, 13, 16, 17, 19, 23, 25, 31, 33, 39, 41

2. $[5, -3)$ is meaningless because interval notation writes the smaller value on the left. $5 < -3$.

7. $[-6, 6)$ \rightarrow $-6 \leq x < 6$ A number line with arrows at both ends. A solid black dot is at -6 and an open circle is at 6. A wavy line connects the two points, and the line continues to the left and right.

13. $-7 < x < 8$ \rightarrow $(-7, 8)$ A number line with arrows at both ends. Open circles are at -7 and 8. A wavy line connects the two points, and the line continues to the left and right.

16. $x > 3$ \rightarrow $(3, \infty)$ A number line with an arrow at the left end and an arrow at the right end. An open circle is at 3. A wavy line starts at the circle and goes to the right, and the line continues to the left.

17. $[-7, 2)$ and $-7 \leq x < 2$

19. $(-\infty, 0]$ and $x \leq 0$

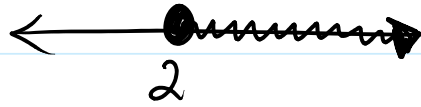
23. $-6 > -8$ and $-6 - 3 > -8 - 3$

25. $2 > -1$ and $-2(2) < -2(-1)$
flip sign!

31. $12 - y \geq 2(9 - 2y)$

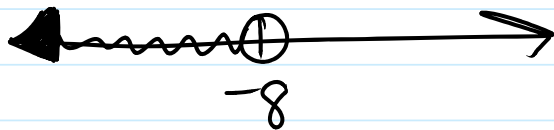
$$12 - y \geq 18 - 4y$$

$$3y \geq 6$$
$$y \geq 2 \quad \text{also } [2, \infty)$$



$$33 \quad \frac{N}{-2} > 4$$

$$N < -8 \quad (\text{flip sign}) \quad (-\infty, -8)$$



$$39. \quad -2 - \frac{B}{4} \leq \frac{1+B}{3}$$

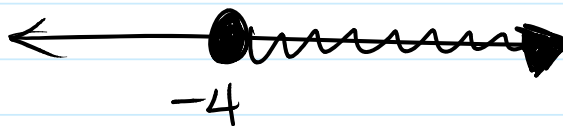
$$-\frac{24}{12} - \frac{3B}{12} \leq \frac{4+4B}{12}$$

$$-24 - 3B \leq 4 + 4B$$

$$-28 \leq 7B$$

$$-4 \leq B$$

$$[-4, \infty)$$

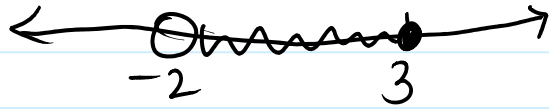


$$41. \quad -4 < 5t + 6 \leq 21$$

$$-10 < 5t \leq 15$$

$$-2 < t \leq 3$$

$$(-2, 3]$$



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