1. Solve the following compound inequality.

$$4x - 9 > -13 \text{ OR } -2x \leq -18$$

- **A.** $-1 < x \leq 9$
- **B.** $x < -1$ OR $x \geq 9$
- **C.** $x \geq 9$
- **D.** $x > -1$

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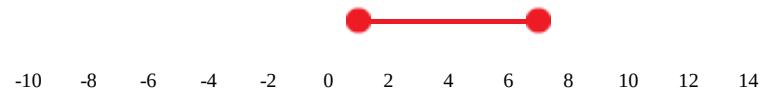
2. Which of the following number lines shows the solution to the compound inequality given below?

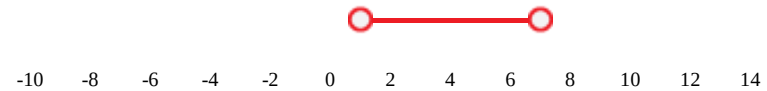
$$3 \leq 4x + 3 \leq 31$$

- **A.**

- **B.**



- **C.**



- **D.**

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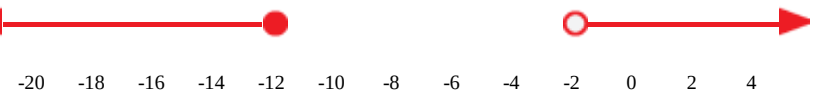
3. Which of the following number lines shows the solution to the inequality given below?

$$4x + 3 \leq -45 \text{ OR } 5x + 8 > -2$$

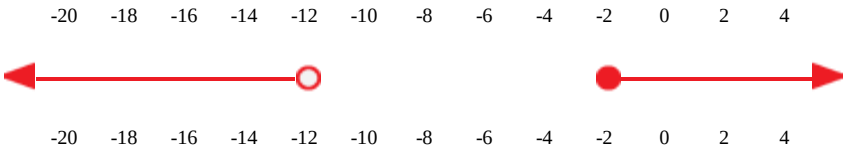
- **A.**

- **B.**



- **C.**

D.



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4. Solve the following inequality.

$$|2x + 5| < 9$$

- **A.** $-2 < x < 7$
- **B.** $x < 2$
- **C.** $-9 < x < 2$
- **D.** $-7 < x < 2$

---

5. Solve the following inequalities.

$$27 < -3(x - 4) < 57$$

- **A.** $-23 < x < -5$
- **B.** $-15 < x < -13$
- **C.** $-15 < x < -5$
- **D.** $-23 < x < -13$

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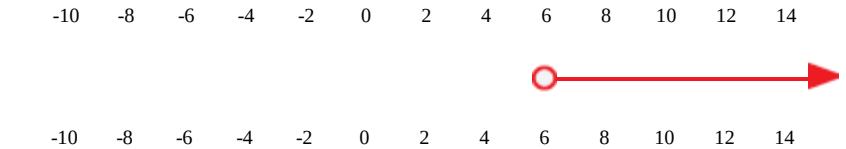
6. Which of the following number lines shows the solution to the compound inequality given below?

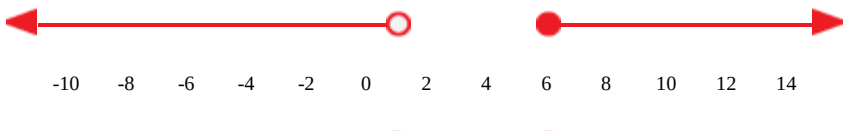
$$3x - 7 > -4 \text{ OR } -5x \leq -30$$

A.

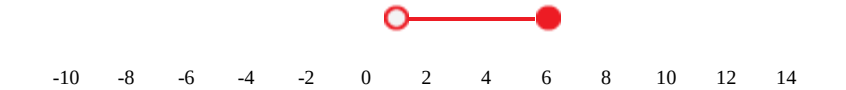
B.



C.



D.



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7. Solve the following inequality.

$$|3x + 7| + 4 < 8$$

A. $x < -1$

B. $x < -\frac{11}{3}$ or $x > -1$

C. $-4 < x < -1$

D. $-\frac{11}{3} < x < -1$

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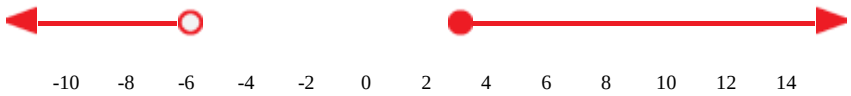
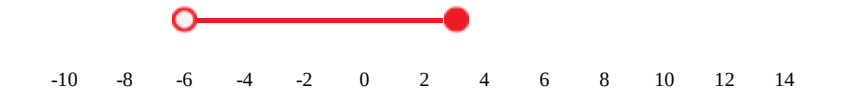
8. Which of the following number lines shows the solution to the compound inequality given below?

$$-3x + 6 < 24 \text{ AND } 3x - 3 \leq 6$$

A.

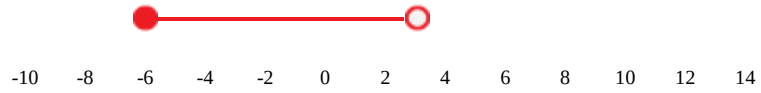


B.



C.

D.



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9. Solve the following inequality.

$$-2|3 - x| + 2 \leq -6$$

A. $x \geq 7$ or $x \leq -1$

B. $x \leq 5$ or $x \geq 1$

C. $x \leq 7$ or $x \geq -1$

D. $x \geq 5$ or $x \leq 1$

10. Solve the following inequalities.

$$-12 < 5x + 3 < 23$$

A. $-\frac{27}{5} < x < \frac{8}{5}$

B. $-3 < x < 4$

C. $-\frac{9}{5} < x < \frac{26}{5}$

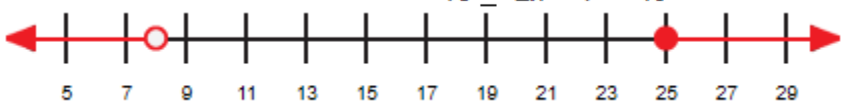
D. $-3 < x < \frac{23}{5}$

11.

Which of the following number lines shows the solution to the compound inequality given below?

$-15 \geq -2x + 1 > -49$

A.



B.

C.

D.

12. Mohammad makes and sells jewelry. His monthly goal is to make a profit over $1500.

- He sells each piece of jewelry for $15.
- He has a monthly fixed cost of $925.

The inequality $15x + 925 > 1500$ models this situation. Which **best** describes the meaning of *x* in the inequality?

A. The profit made from selling 15 pieces of jewelry
B. The number of pieces of jewelry that Mohammad must sell to recover his monthly fixed costs
C. The profit made from 1 month of sales
D. The number of pieces of jewelry Mohammad must sell to reach his goal

13. Ethan wants to buy an action figure for $5 and several packs of trading cards for $8 each at a toy store. He can spend no more than $45 at the store today, but if he spends $21 or more he will receive a free poster.

Write and solve an inequality where *x* represents how many packs of cards Ethan can buy today to receive the free poster.

14. Write a graph that shows the solution set of the inequality $|3x - 9| > 12$?

15. Graph the inequality $\frac{x}{9} \leq \frac{2}{3}$

16. Graph the solution to the compound inequality

$-x + 4 < 16$ AND $4x - 1 \leq 11$

17. Graph the compound inequality $-3 < 2x - 1 < 15$

18. Solve the following inequality.

$$-3|7 - x| \leq -6$$