

Write the letter for the correct answer in the blank at the right of each question.

For Questions 1–6, solve each inequality.

1. $-13 > w + 12$

A $\{w \mid w < -25\}$

B $\{w \mid w > -25\}$

C $\{w \mid w > -1\}$

D $\{w \mid w < -1\}$

1. _____

2. $x - \frac{1}{4} \leq -\frac{1}{2}$

F $\left\{x \mid x \leq -\frac{1}{4}\right\}$

G $\left\{x \mid x \leq -\frac{3}{4}\right\}$

H $\left\{x \mid x \geq -\frac{1}{4}\right\}$

J $\left\{x \mid x \geq -\frac{3}{4}\right\}$

2. _____

3. $\frac{m}{-5} < -3$

A $\{m \mid m > -15\}$

B $\{m \mid m < -15\}$

C $\{m \mid m < 15\}$

D $\{m \mid m > 15\}$

3. _____

4. $-1.1t \leq 4.62$

F $\{t \mid t \leq 5.72\}$

G $\{t \mid t \geq 5.72\}$

H $\{t \mid t \leq -4.2\}$

J $\{t \mid t \geq -4.2\}$

4. _____

5. $5z - 4 > 2z + 8$

A $\{z \mid z > 4\}$

B $\{z \mid z < 1\}$

C $\{z \mid z < 4\}$

D $\{z \mid z > 1\}$

5. _____

6. $7 - 9r - (r + 12) \leq 25$

F $\{r \mid r \leq -3\}$

G $\{r \mid r \leq -0.6\}$

H $\{r \mid r \geq -3\}$

J $\{r \mid r \geq -0.6\}$

6. _____

7. The sum of two consecutive integers is at most 7. What is the largest possible value for the lesser integer?

A 1

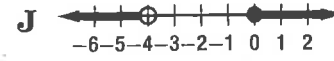
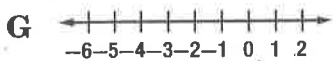
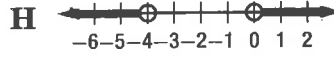
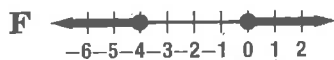
B 3

C 2

D 5

7. _____

8. Which of the following is the graph of the solution set of $x > 0$ or $x < -4$?



8. _____

9. Which compound inequality has the solution set shown in the graph?

A $-2 < y < 3$

C $y \geq -2$ or $y < 3$

B $-2 < y \leq 3$

D $-2 \leq y < 3$

9. _____

10. Which of the following is the solution set of $-3 < 2x + 7 \leq 13$?

F $\{x \mid -5 < x \leq 3\}$

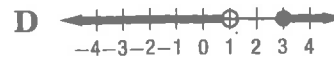
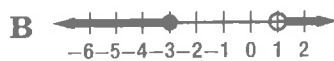
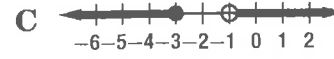
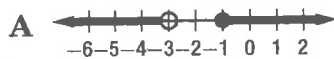
H $\{x \mid x < -5\}$

G $\{x \mid x < 3$ or $x > -5\}$

J $\{x \mid -5 \leq x < 3\}$

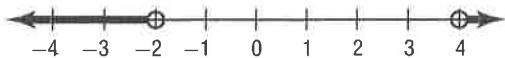
10. _____

11. Which of the following is the graph of the solution set of $7a + 3 \leq a - 15$ or $5a - 3 < 8a$?



11. _____

12. Which inequality corresponds to the graph shown?



F $|x - 3| > 1$

H $|x - 1| > 3$

G $|x - 3| < 1$

J $|x - 1| < 3$

12. _____

13. Which of the following is the solution set of $\{4 - 7x\} \geq 3$?

A $\left\{x \mid x < \frac{1}{7} \text{ or } x > 1\right\}$

C $\left\{x \mid x \leq \frac{1}{7} \text{ or } x \geq 1\right\}$

B $\{x \mid x \text{ is a real number.}\}$

D $\{x \mid 1 \leq x \leq 7\}$

13. _____

14. Katrina's weight is within 8 pounds of her ideal weight of 120 pounds. What is her range of weight?

F $x \geq 112 \text{ or } x \geq 128$

H $112 \geq x \geq 128$

G $x \leq 112 \text{ or } x \leq 128$

J $112 \leq x \leq 128$

14. _____

15. Which ordered pair is part of the solution set of the inequality $5 - y \leq -3x$?

A (2, -1)

B (-2, -1)

C (-3, -5)

D (3, -5)

15. _____

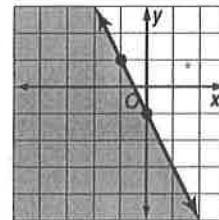
16. Which inequality is graphed?

F $y \leq 2x - 1$

H $y \leq -2x - 1$

G $y \geq 2x - 1$

J $y \geq -2x - 1$



16. _____

17. Alicia has at most \$196 to buy a new baseball glove and a new baseball bat. Which inequality represents this situation?

A $y \leq 196 - x$

B $y \leq 196 + x$

C $196 \leq y + x$

D $y - x \geq 196$

17. _____

18. Determine which of the ordered pairs are a part of the solution set of $y + 3 < 2x - 1$.

F (0, 0)

G (2, 0)

H (0, -4)

J (2, -2)

18. _____

19. Which inequality has a solution set of $\{x \mid x > 4 \text{ and } x < 8\}$?

A $\left|\frac{1}{2}x - 3\right| < 1$

C $\left|\frac{1}{2}x - 1\right| < 3$

B $\left|\frac{1}{2}x - 3\right| > 1$

D $\left|\frac{1}{2}x - 1\right| > 3$

19. _____

20. Beng and Shim have less than \$30 for candle-making supplies. The molds x cost \$6 each and the wax y is \$2 per pound. Which point represents a reasonable number of molds and pounds of wax they could buy?

F (3, 4)

G (4, 4)

H (5, 1)

J (3, 6)

20. _____