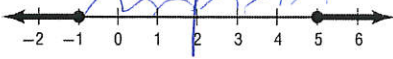


Key

Chapter 5 Sample Test (continued)

12. Which inequality corresponds to the graph shown?



- F $|x - 2| < 3$ H $|x - 2| \geq 3$
 G $|x - 2| > 3$ J $|x - 2| \leq 3$

12.

13. What is the solution set of $|2x - 3| > 4$?

$x > \frac{7}{2}$ $2x - 3 > 4$ $2x - 3 < -4$ $x < -\frac{1}{2}$
 $+3 \quad +3$ $\frac{2x}{2} = \frac{7}{2}$ $+3 \quad +4$ $\frac{2x}{2} < \frac{-1}{1}$

13. $x < -\frac{1}{2}$ or $x > \frac{7}{2}$

14. Pete's grade on a test was within 5 points of his class average of 94. What is his range of grades on the test?

$94 - 5 = 89$ $94 + 5 = 99$ 1
 15
 3
 8

14. $89 \leq x \leq 99$

15. Which ordered pair is part of the solution set of the inequality $12 + y \leq -3x$?

- A $(-16, 3)$ B $(1, 4)$ C $(4, -1)$ D $(3, -16)$

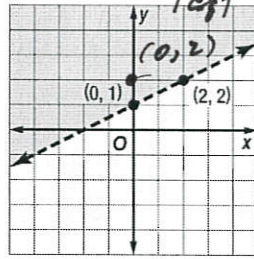
$-4 \leq -9$

$15 \leq 48$

15.

16. Which inequality is graphed at the right?

- F $y < 2x + 1$ H $y < \frac{1}{2}x + 1$
 G $y > 2x + 1$ J $y > \frac{1}{2}x + 1$



$m = \frac{1}{2}$
 $b = 1$
 $y > \frac{1}{2}x + 1$
 $27 \text{ or } 1 \checkmark$

16.

17. Taka bought a new coat and new shoes. He spent \$122. Which inequality represents this situation if x represents the cost of a coat and y represents the cost of the shoes he buys?

- A $122 \leq y + x$ B $y \leq 122 + x$ C $y - x \geq 122$ D $y \leq 122 - x$

$x + y \leq 122$

17.

18. Determine which of the ordered pairs are a part of the solution of $y + 1 > \frac{1}{2}x + 3$.

- F $(2, 3)$ G $(-4, 0)$ H $(1, 2)$ J $(-3, 1)$

$4 > 4$

$17 - 2 > 3$

$3 > 3\frac{1}{2}$

$2 > 1\frac{1}{2} \checkmark$

19. Which inequality has a solution set of $\{x \mid x > -3 \text{ or } x < -4\}$?

- A $|2x + 7| < 1$ B $|2x + 7| > 1$ C $|2x + 7| > -1$ D $|2x + 7| > -1$

$1 < 8 \text{ or } 4 \dots$

$1 > -1$ $1 < -1$ $1 > -1$ $1 > -1$

19.

20. Laurie and Maya sold at most \$50 worth of get-well and friendship cards. The friendship cards, x , were sold for \$2 each and the get-well cards, y , were sold for \$1.50 each. Which point represents a reasonable number of cards sold?

- F $(20, 10)$ G $(15, 10)$ H $(18, 20)$ J $(10, 30)$

$2x + 1.5y \leq 50$

20.

Bonus Solve $6(|n| - 3) - 4|n| + 5 \leq 11$.

$2(15) + 1.5(10)$
 $30 + 15 = 45 \leq 50$

20.

B: $\begin{pmatrix} 11 \\ -2 \end{pmatrix}$

Chapter 5 Sample Test

SCORE _____

For Questions 1-6, solve each inequality.

1. $-51 \leq x + 38$
 $-38 \quad -38$
 $-89 \leq x$

$\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$

1. $x \geq -89$

2. $m - \frac{3}{8} > \frac{1}{2}$

$m > \frac{7}{8}$

2. $m > \frac{7}{8}$

3. $\frac{t}{-2} > 4$

$t < -8$

3. $t < -8$

4. $-3.5z < 42$

$z > 12$

4. $z > 12$

5. $4w - 6 > 6w - 20$

$-4w + 20 > -4w + 20$
 $14 > 2w \quad 7 > w$

5. $w < 7$

6. $8r - (5r + 4) \geq -31$

$8r - 5r - 4 \geq -31$
 $3r - 4 \geq -31$
 $3r \geq -27$
 $r \geq -9$

6. $r \geq -9$

7. The sum of two consecutive integers is at most 3. What is the greatest possible value for the greater integer?

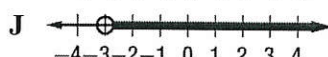
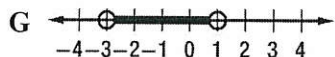
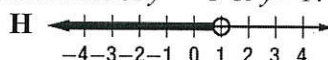
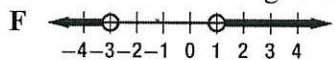
$x + (x+1) \leq 3$
 $2x + 1 \leq 3$
 $2x \leq 2$
 $x \leq 1$

7. 2

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

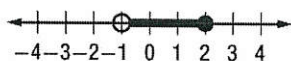
8. Which of the following is the graph of the solution set of $y < -3$ or $y > 1$?

8. F



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

9. D



- A $-1 < n < 2$
- B $-1 \leq n < 2$

- C $n \geq -1$ or $n < 2$
- D $-1 < n \leq 2$

10. Which of the following is the solution set of $-4 < 3t + 5 \leq 20$?

10. F

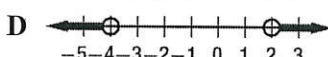
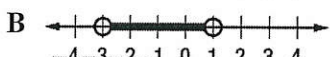
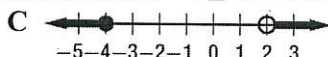
- F $\{t \mid -3 < t \leq 5\}$
- G $\{t \mid t < -3 \text{ and } t \leq 5\}$

- H $\{t \mid t < -3\}$
- J $\{t \mid t < -3 \text{ or } t \geq 5\}$

$-9 < 3t \leq 15$
 $\frac{-9}{3} < \frac{3t}{3} \leq \frac{15}{3}$
 $-3 < t \leq 5$

11. Which of the following is the graph of the solution set of $t - 4 \geq 4t + 8$ or $3t > 14 - 4t$?

11. C



$7t > 14$
 $t > 2$

$-12 \geq 3t$
 $\frac{-12}{3} \geq \frac{3t}{3}$
 $t \leq -4$