

Chapter 5 Test, Form 1

SCORE _____

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

For Questions 1–7, solve each inequality.

1. $x - 7 > 3$
A $\{x \mid x > 10\}$ **B** $\{x \mid x > -4\}$ **C** $\{x \mid x < 10\}$ **D** $\{x \mid x < -4\}$ 1. _____

2. $3 \geq t + 1$
F $\{t \mid t \leq 4\}$ **G** $\{t \mid t \geq 2\}$ **H** $\{t \mid t \leq 2\}$ **J** $\{t \mid t \geq 4\}$ 2. _____

3. $1 \geq -$
A -- **B** $\{y \mid y \geq -4\}$ **C** $\{y \mid y \leq 4\}$ **D** $\{y \mid y \leq 3\}$ 3. _____

4. $5m < -25$
F $\{m \mid m < 125\}$ **G** $\{m \mid m < -125\}$ **H** $\{m \mid m > -5\}$ **J** $\{m \mid m < -5\}$ 4. _____

5. $-36 \leq 3t$
A $\{t \mid t \geq -12\}$ **B** $\{t \mid t \leq 12\}$ **C** $\{t \mid t \geq 12\}$ **D** $\{t \mid t \leq -12\}$ 5. _____

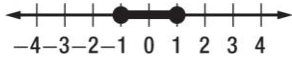

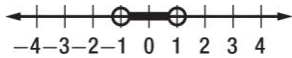
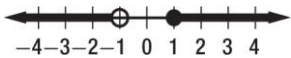
6. $6y - 8 > 4y + 26$
F $\{y \mid y > -9\}$ **G** $\{y \mid y > -17\}$ **H** $\{y \mid y > 9\}$ **J** $\{y \mid y > 17\}$ 6. _____


7. $3(2d - 1) \geq 4(2d - 3) - 3$
A $\{d \mid d \geq -9\}$ **B** $\{d \mid d \leq -6\}$ **C** $\{d \mid d \geq 3\}$ **D** $\{d \mid d \leq 6\}$ 7. _____

8. Six is at least four more than a number. Which inequality represents this sentence?
F $6 \leq n + 4$ **G** $6 \geq n + 4$ **H** $4 \leq n + 6$ **J** $4 \geq n + 6$ 8. _____

9. More than eighteen students in an algebra class pass the first test. This is about three-fifths of the class. How many students are in the class?
A less than 30 **B** less than 25 **C** more than 30 **D** 25 9. _____

10. Phillip has between two hundred and three hundred baseball cards. Which inequality represents this situation?
F $200 < p < 300$ **H** $p < 300$ or $p < 200$
G $200 > p > 300$ **J** $p < 200$ and $p > 300$ 10. _____

11. Which of the following is the graph of the solution set of $m > -1$ and $m \leq 1$?
A  **C** 
B  **D**  11. _____

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

F $x < -1$ or $x > 3$ **H** $x > -1$ or $x \geq 3$
G $x > -1$ or $x < 3$ **J** $x \leq -1$ or $x \geq 3$ 12. _____

Chapter 5 Test, Form 1 *(continued)*

13. Which of the following is the solution set of $2a + 1 > 9$ or $a < -1$?

- A** $\{a \mid a < -1 \text{ or } a > 4\}$ **C** $\{a \mid -1 \leq a \leq 4\}$
B $\{a \mid a \leq -1 \text{ or } a \geq 4\}$ **D** $\{a \mid a < -1 \text{ or } a > 5\}$

13. _____

14. Which inequality corresponds to the graph shown?



- F** ≤ 1 **H** ≥ 1
G ≤ 3 **J** ≥ 3

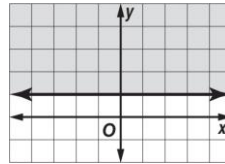
14. _____

15. Solve $x < 2$.

- A** $\{x \mid 1 < x < 5\}$ **C** $\{x \mid -1 < x < 1\}$
B $\{x \mid -5 < x < -1\}$ **D** $\{x \mid -1 < x < 5\}$

15. _____

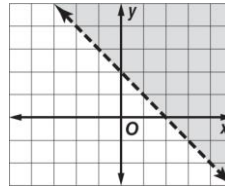
16. Which inequality has the solution set shown in the graph?



- F** $y < 1$ **H** $y > 1$
G $y \leq 1$ **J** $y \geq 1$

16. _____

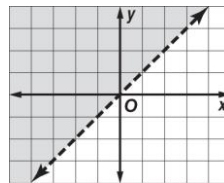
17. Which inequality has the solution set shown in the graph?



- A** $y < -x + 2$ **C** $y < -x + 1$
B $y > -x + 2$ **D** $y > -x + 1$

17. _____

18. Determine which of the ordered pairs are a part of the solution set for the inequality graphed at the right.



- F** (2, 1) **H** (-3, -3)
G (1, 3) **J** (-2, -3)

18. _____

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

- A** > 6 **C** ≥ 6
B < 6 **D** ≤ 6

19. _____

20. Juan's income y consists of at least \$37,500 salary plus 5% commission on all of his sales x . Which inequality represents Juan's income in one year?

- F** $y \leq 37,500 + 5x$ **H** $y \geq 37,500 + 0.05x$
G $y \geq x + 0.05(37,500)$ **J** $y \geq 37,500 + 5$

20. _____

Bonus If $x < 0$, which integer does not satisfy the inequality $x + 2 < 1$?

B: _____