NAME _____ DATE _____ PERIOD _____

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.** A

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.** H

3. $1 \geq \frac{-y}{4}$

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

4. $5m < -25$

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

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.** A

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.** J

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.** D

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.** G

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.** C

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.** F

11. Which of the following is the graph of the solution set of $m > -1$ and $m \leq 1$?

A

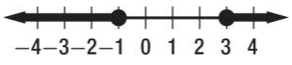
C

B

D

11. C

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.** J

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Chapter 5 Test, Form 1 *(continued)*

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

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

13. A

14. Which inequality corresponds to the graph shown?

F $|x - 3| \leq 1$
G $|x - 1| \leq 3$
H $|x - 3| \geq 1$
J $|x - 1| \geq 3$

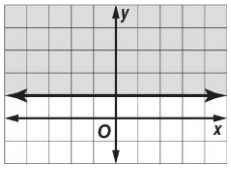
14. G

15. Solve $|x - 3| < 2$.

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

15. A

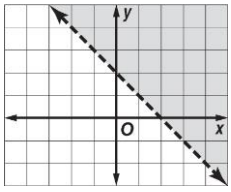
16. Which inequality has the solution set shown in the graph?



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

16. J

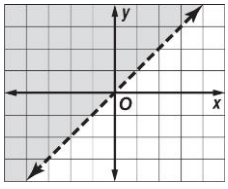
17. Which inequality has the solution set shown in the graph?



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

17. B

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



F (2, 1)
G (1, 3)
H (–3, –3)
J (–2, –3)

18. G

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

A $|2x| > 6$
B $|2x| < 6$
C $|2x| \geq 6$
D $|2x| \leq 6$

19. A

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 $y \leq 37{,}500 + 5x$
G $y \geq x + 0.05(37{,}500)$
H $y \geq 37{,}500 + 0.05x$
J $y \geq 37{,}500 + 5$

20. H

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

B: –1