

PRACTICE TEST 2

CHAPTER 9

NAME _____

TEST FORM H

CLASS _____ SCORE _____ GRADE _____

1. Solve: $-0.8y < 24$.
 a) $\{y|y > -30\}$ b) $\{y|y < 3\}$
 c) $\{y|y > -3\}$ d) $\{y|y > 30\}$

2. Solve: $-3y - 4 \geq 5$.
 a) $[3, \infty)$ b) $[-3, \infty)$ c) $(-\infty, -3)$ d) $(-\infty, -3]$

3. Solve: $7a - 9 \leq -2a + 3$.
 a) $\left\{a \mid a \leq \frac{4}{3}\right\}$ b) $\left\{a \mid a \leq \frac{3}{4}\right\}$
 c) $\left\{a \mid a \geq \frac{4}{3}\right\}$ d) $\left\{a \mid a \geq \frac{3}{4}\right\}$

4. Solve: $3(7 - 2x) > 3x + 5$.
 a) $\left(-\infty, -\frac{16}{9}\right)$ b) $\left(\frac{3}{4}, \infty\right)$
 c) $\left(-\frac{4}{3}, \infty\right)$ d) $\left(-\infty, \frac{16}{9}\right)$

5. Let $f(x) = -8x + 13$ and $g(x) = -12x + 1$. Find all values of x for which $f(x) > g(x)$.
 a) $\{x|x < 1\}$ b) $\{x|x > -2\}$ c) $\{x|x > -3\}$ d) $\{x|x > 3\}$

6. Nan can rent a van for either \$50 per day with unlimited mileage or \$35 per day with 75 free miles and an extra charge of 20¢ for each mile over 75. For what numbers of miles traveled would the unlimited mileage plan save Nan money?
 a) at least 250 b) at most 350
 c) at most 150 d) at least 150

ANSWERS

1. _____

2. _____

3. _____

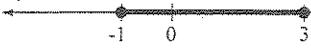
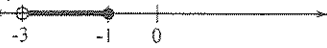
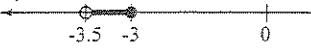
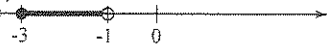

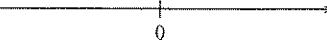
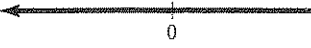
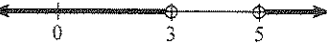
4. _____

5. _____

6. _____

TEST FORM H

ANSWERS

7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
7. Find the intersection: $\{4,6,8,9,10\} \cap \{0,6,8,10\}$.
 a) $\{6,8,10\}$ b) $\{0,2,4,6,8,9,10\}$
 c) $\{4,6\}$ d) $\{0,2,4,6\}$
8. Find the domain of $f(x) = \sqrt{4-2x}$.
 a) $(-\infty, -2)$ b) $(-\infty, 2)$ c) $(-\infty, 2]$ d) $[-2, \infty)$
9. Identify the graph of the solution set for $-1 \leq -4t - 5 < 7$.
 a)  b) 
 c)  d) 
10. Identify the graph of the solution set for $2x - 3 < 3$ and $x - 8 > -3$.
 a)  b) 
 c)  d) 
11. Solve $-4x > 8$ or $7x > 7$.
 a) $(-\infty, -2) \cup (-3, \infty)$ b) $(-\infty, -2) \cup (1, \infty)$
 c) $(-\infty, -2) \cup (-1, \infty)$ d) $(-\infty, -1) \cup (2, \infty)$
12. Solve: $-\frac{1}{5} < \frac{1}{10}x - 1 \leq \frac{1}{5}$.
 a) $\{8 \leq x \leq 12\}$ b) $\{-12 \leq x < 8\}$
 c) $\{8 \leq x < 12\}$ d) $\{8 < x \leq 12\}$

TEST FORM H

13. Solve $|3x + 2| < 2$.

- a) $\left(\frac{1}{2}, \frac{5}{2}\right)$ b) $\left(0, \frac{3}{2}\right)$ c) $\left(-\frac{4}{3}, 0\right)$ d) $\left(\frac{1}{2}, \frac{3}{2}\right)$

14. Solve $|-4t - 6| \geq 8$.

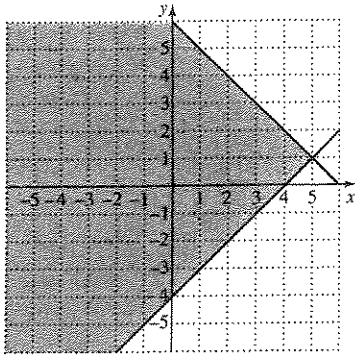
- a) $\{t | t \leq -1 \text{ or } t \geq 4\}$ b) $\left\{t \mid t \leq -\frac{7}{2} \text{ and } t \geq \frac{1}{2}\right\}$
 c) $\left\{t \mid t \leq -\frac{7}{2} \text{ or } t \geq \frac{1}{2}\right\}$ d) $\left\{t \mid t \leq \frac{7}{2} \text{ or } t \geq -\frac{1}{2}\right\}$

15. Solve $|3 - 5x| = -7$.

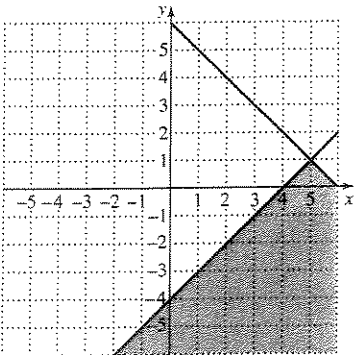
- a) \emptyset b) \mathbb{R} c) $-\frac{4}{5}, 2$ d) 2

16. Graph: $x + y \geq 6$
 $x - y \geq 4$.

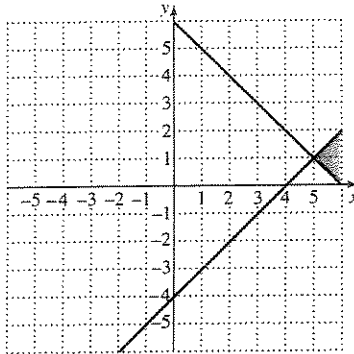
a)



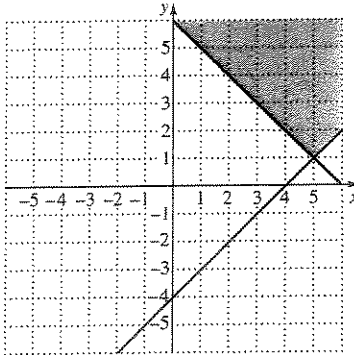
c)



b)



d)



ANSWERS

13. _____

14. _____

15. _____

16. _____

TEST FORM H

ANSWERS
17. _____

17. Find the maximum value of $F(x) = 2x + 3y$ subject to

$$x + y \leq 5$$

$$-5 \leq x \leq 5$$

$$0 \leq y \leq 3$$

- a) 25 b) -10 c) -5 d) 13

18. _____

Pretensions Spa makes \$10 on each pedicure and \$17 on each foot massage. A pedicure takes 25 minutes, a massage takes 75 minutes, and there are 10 employees who each work 6 hours per day. The spa can schedule 60 appointments per day.

19. _____

18. How many appointments in one day should be pedicures in order to maximize profit?

- a) 35 b) 25 c) 42 d) 18

19. What is the maximum profit?

- a) \$805 b) \$880 c) \$948 d) \$894

Chapter 9, Test Form H

1. a 2. d 3. a 4. d 5. c 6. d 7. a 8. c 9. b 10. b 11. b 12. d 13. c
14. c 15. a 16. b 17. d 18. d 19. d