Math 8CP

Trimester 2 Benchmark Review Day 3

1) Which ordered pair is a solution of $3x - y = 10$?

A) (-1, 3) B) (2, -1) C) (3, 2) D) (3, -1)

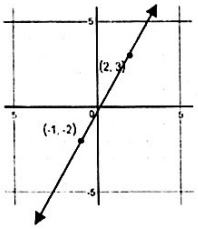
2) What is the slope of all vertical lines?

A) 1 B) 0 C) undefined D) -1

3) Find the slope of the line passing through (5, 3) and (-3, 4)

A) $-\frac{1}{8}$ B) -8 C) $\frac{7}{8}$ D) $-\frac{7}{8}$

4) What is the slope of this line?



A) $-\frac{5}{3}$ B) $\frac{3}{5}$

C) $\frac{5}{3}$ D) $-\frac{3}{5}$

5) Find the x-intercept and y-intercept of 4x - 3y = 12

A) x-int: (-3, 0), y-int: (0, 4) B) x-int: (3, 0), y-int: (0, -4)

C) x-int: (4, 0), y-int: (0, 3) D) x-int: (-4, 0), y-int: (0, 3)

6) Find the slope and y-intercept of 3x + y = 9

A) m = 3, b = 9 B) m = -3, b = -9

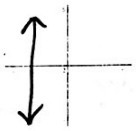
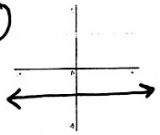
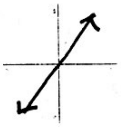
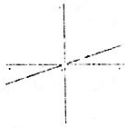
C) m = -3, b = 9 D) m = 3, b = -9

7) Rewrite the equation -2x + 5y = 13

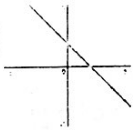
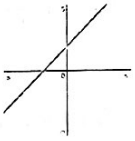
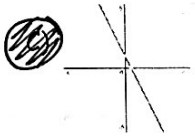
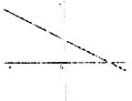
A) $y = -\frac{2}{5}x + \frac{13}{5}$ B) $y = -\frac{2}{5}x - \frac{13}{5}$

C) $y = \frac{2}{5}x - \frac{13}{5}$ D) $y = \frac{2}{5}x + \frac{13}{5}$

8) Which is the graph of y = 3?

A)  B)  C)  D) 

9) Graph the equation y = -x + 2.

A)  B)   D) 

10) What is the equation of a line with a slope of -3 that passes through the point (2, -1)?

A) y = -3x + 5 B) y = -3x - 7

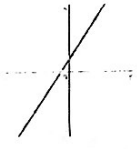
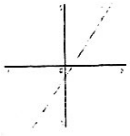
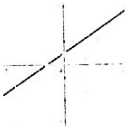
C) y = -3x - 1 D) y = -3x + 1

11) A company charges a flat rate of $25 to rent a bike and then $12 per hour. Write a linear equation to model the situation. Use slope-intercept form.

A) y = 25x + 12 B) y = 12x + 25

C) x + 12y = 25 D) 12x = 25y

12) Graph the equation $y = \frac{2}{3}x - 1$

A)  B)   D) 

13) Use substitution to solve the system: $6x - 5y = -21$
$y - 4x = 7$

A) (-3, 1) (B) (-1, 3) C) (4, 0) D) (-6, 5)

14) Use elimination to solve this system: $x - 2y = -13$
$2x + 5y = 1$

A) (-9. 3) B) (7, -3) C) (9, -7) (D) (-7 3)

15) Determine if the system has no solution, many solutions, or one solution. If it is one solution, find the solution. $3x + 2y = 11$
$9x + 6y = 33$

(A) many solutions B) no solution
C) one solution (3, 1) D) one solution (-3, -1)

16) Mrs. Smith took her family to the movies and spent $54. Adult tickets costs $10 and children's tickets cost $6. If she bought 7 tickets total, which system represents the situation?

A) $a - c = 7$
$10a + 6c = 54$

(B) $a + c = 7$
$10a + 6c = 54$

C) $a + c = 7$
$10a + 7c = 378$

D) $a + c = 7$
$6a + 10c = 54$

17) Between which two integers does $-\sqrt{35}$ lie?

(A) 5 and 6 B) -5 and -7 C) 7 and -6 D) -5 and -6

18) Evaluate: $-\sqrt{64}$

A) -4 B) 16 (C) -8 D) 32

19) Evaluate: $37-\left(\sqrt{3}\right)^2$

(A) 34 B) 40 C) 28 D) 31

20) The volume of a cube is 64 cubic inches. What is the length of one side?

A) 32 in. B) 8 in. (C) 4 in. D) 16 in.

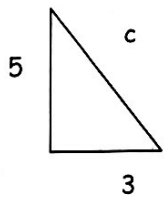
21) What is the Pythagorean Theorem?

A) $a^2 + c^2 = b^2$ (B) $a^2 + b^2 = c^2$
C) $b^2 + c^2 = a^2$ D) $a + b = c$

22) A 26 foot ladder is leaning against a house. The ladder hits the wall at a height of 24 feet. How far away from the house is the ladder?

A) 25 foot (B) 10 foot C) 50 foot D) 2 foot

23) Find the value of c.



A) $\sqrt{26}$ B) 4
C) 2 (D) $\sqrt{34}$

24) A right triangle has legs of 8 and 15. What is the length of the hypotenuse?

(A) 17 B) 7 C) 12 D) 23

25) The area of a circle is 49π. Find the radius.

A) 18 B) 4 C) 14 (D) 7