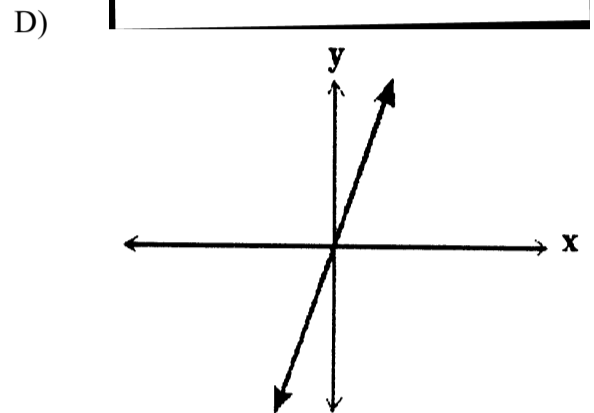
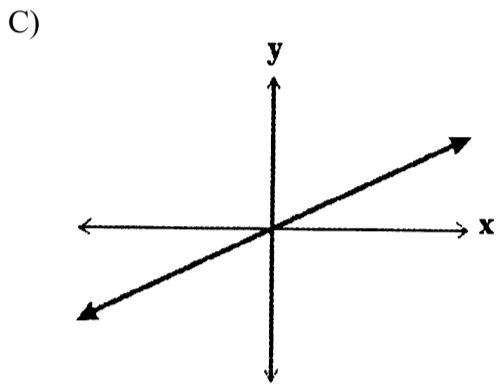
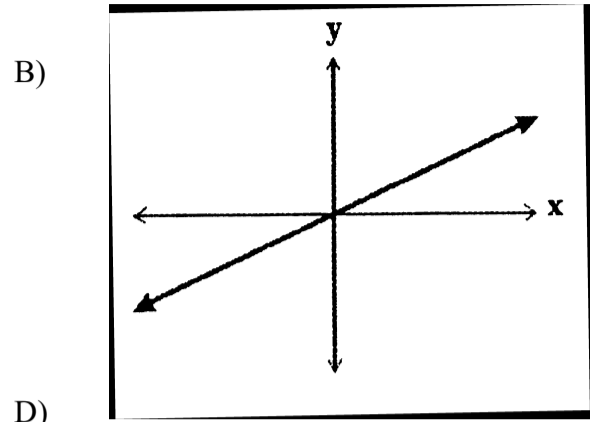
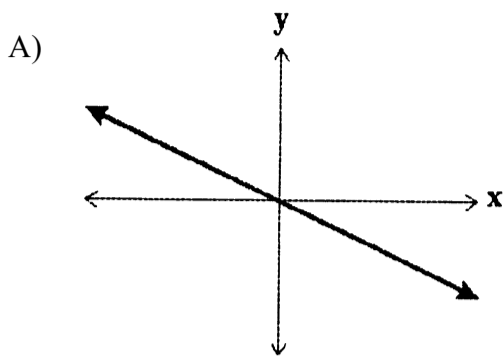


**Grade 9 Math**  
**Test: Unit 3 - The Line**

Name: \_\_\_\_\_

- 1 The point  $(-3, 6)$  is in which quadrant?  
A 1<sup>st</sup>                      B. 2<sup>nd</sup>                      C. 3<sup>rd</sup>                      D. 4<sup>th</sup>
- 2 What is the slope of  $x = 6$ ?  
A - 5                      B 0                      C 5                      D undefined
- 3 What is the y-intercept of the line  $y = \frac{-2}{3}x - 5$ ?  
A  $(-5, 0)$               B  $(0, -5)$               C  $(0, 5)$               D  $(5, 0)$
- 4 Which line has the steepest slope?  
A  $y = -3.4x + 5$                       B  $y = 2x - 7$   
B  $y = 1.3x + 9$                       D  $y = -7x + 3$
- 5 Studies confirm that the number of hours spent studying effects students' performance on a test. What is the *dependent* variable?  
A number of hours studying                      B number of questions on test  
C test results                      D type of test
- 6 What is the equation of a vertical line that passes through  $(-3, 5)$ ?  
A  $x = -3$               B  $x = 5$               C  $y = -3$               D  $y = 5$
- 7 What is the x-intercept of the line  $y = 6$ ?  
A -6                      B 6                      C 0                      D there is no x -intercept
- 8 Which of the following equations has a slope of  $\frac{3}{4}$  and has a y-intercept of - 2.  
A  $y = \frac{3}{4}x - 2$   
B  $y = \frac{3}{4}x + 2$   
C  $y = -2x + \frac{3}{4}$   
D  $y = 2x - \frac{3}{4}$
- 9 A line passes through  $(1, 2)$  and  $(3, 5)$ . What is its slope?  
A)  $\frac{-3}{2}$                       B)  $\frac{-2}{3}$                       C)  $\frac{2}{3}$                       D)  $\frac{3}{2}$

- 10 Four students in John's class graphed the equation  $y = -\frac{2}{5}x$ . Each student produced a graph. When the teacher looked at their work he was able to tell at a glance that only one was correct. Which graph is correct?



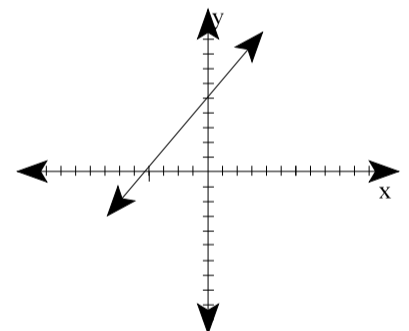
- 11 Which equation represents an internet company which charges a basic fee of \$15 in addition to a fee of \$2 per hour?

A  $x = 2y + 15$   
C  $y = 2x + 15$

B  $x = 15y + 2$   
D  $y = 15x + 2$

- 12 What is the equation of the line given in the diagram ?

A  $y = -1.25x + 5$   
B  $y = -1.25x - 5$   
C  $y = 1.25x - 5$   
D  $y = 1.25x + 5$



- 13 A line segment passes through the y-axis at 11. If one of the endpoints is (2, 5), what is the equation of the segment?

A  $y = 11x - 3$

B  $y = 3x + 11$

C  $y = -\frac{5}{9}x + 11$

D  $y = -3x + 11$

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

A  $y = -2x + 0.5$   
C  $y = -2x + 2.5$

B  $y = -2x + 1$   
D  $y = -2x + 5$

- 15 Which of the following points lies on the line that has a slope of  $-\frac{3}{4}$  and an x-intercept of 2?

A (5, -4)  
C (-2, 3)

B (4, -1)  
D (-1, 4)

16 A line has the equation  $y = -4x + b$  and passes through  $(-2, 3)$ . What is the value of  $b$ ?

- A -5                      B 0                      C 4                      D 5

17 The following table show the total amount of donations collected by a company. The total amount of donations  $T$ , is related to  $d$ , the number of days collecting. Which of the following equations describe this relation?

Day, $d$	Donations, $T$
2	400
4	550
6	700
8	850
10	1000

- A  $T = 75x + 250$   
 B  $T = 75x + 400$   
 C  $T = 150x + 250$   
 D  $T = 150x + 40$

18 Which of the following sets of points are collinear?

- A A (0, -2)    B (2, 2)    C (3, 4)  
 B A (0, 0)    B (-4, -5)    C (-8, -2)  
 C A (1, 4)    B (3, 7)    C (11, 18)  
 D A (2, 5)    B (-2, 4)    C (0, 1)

19 The given table shows the cost of a taxi cab after traveling a certain number of kilometers. What is the equation that represents the cost of the taxi cab?

# of kilometers ( $k$ )	0	1	2	3	4
cost of taxi ( $C$ )	2	2.15	2.3	2.45	2.6

- A  $C = 0.15k + 2$                       C  $C = 2k + 0.15$   
 B  $C = 1k + 2$                       D  $C = 2.15k$

20 What is the equation of the line passing through the point  $(3, 2)$  and having a slope of 4?

- A  $y = 4x + 14$                       C  $y = -4x + 3$   
 B  $y = -4x + 2$                       D  $y = 4x - 10$

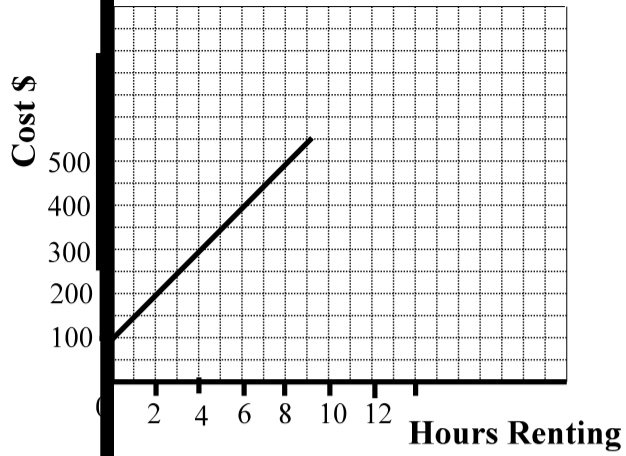
21 What is true of a line that has a slope of zero?

- A is horizontal.                      B always passes through the origin.  
 C is vertical.                      D does not exist.

22 This table provides three data points from a linear data set. Where would the line that contains this data cross the  $y$ -axis?

- A -3                      x . . . 6    8    10 . . .  
 B -1                      y . . . 9    13    17 . . .  
 C 0  
 D 11

Use the graph below to answer questions 23 - 25. The graph below represents the cost of renting a cement mixer.



23. How much money will you have to pay up front for the rental?
- A     \$0                      B     \$50                      C     \$75                      D     \$100
24. What is the rate charged per hour?
- A     \$50/hour                      C     \$75/hour  
 B     \$100/hour                      D     \$300/hour
25. Which equation below could represent the cost of the plan?
- A      $y = 50x + 100$                       C      $y = 100x + 300$   
 B      $y = 100x + 400$                       D      $y = 300x + 400$