

Math 1201
Chapter 6 SAMPLE TEST

Part A: Multiple Choice Place the letter that corresponds to the correct answer in the space provided to the right. (10 marks)

1. Find the slope of the line that passes through the points A(2, -3) and B(-5, 7). 1.____

- a) $-\frac{12}{5}$ b) $-\frac{10}{7}$ c) $-\frac{7}{10}$ d) $-\frac{4}{7}$

2. What is the y-intercept of $x - 2y + 3 = 0$? 2.____

- a) -3 b) $-\frac{3}{2}$ c) $\frac{1}{2}$ d) $\frac{3}{2}$

3. What is the slope of the line $2x - 3y = 48$? 3.____

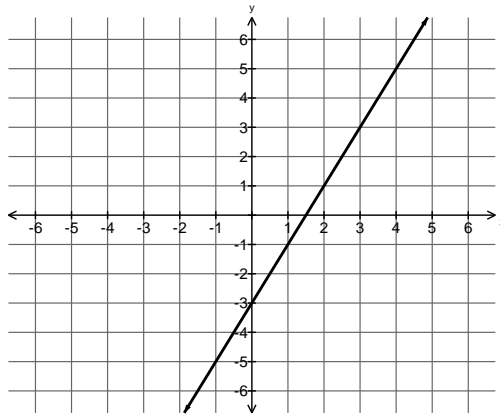
- a) $-\frac{2}{3}$ b) $\frac{2}{3}$ c) $-\frac{1}{2}$ d) $\frac{1}{2}$

4. Given: $2x + 4y = 11$, what is the x-intercept? 4.____

- a) $\frac{11}{2}$ b) $\frac{11}{4}$ c) $-\frac{11}{2}$ d) $-\frac{11}{4}$

5. What is the equation of the line given in the diagram? 5.____

- a) $y = \frac{1}{2}x + 3$
b) $y = \frac{1}{2}x - 3$
c) $y = 2x + 3$
d) $y = 2x - 3$



6. What is the equation of a line with undefined slope and passes through the point (0,-3)? 6.____

- a) $x = 0$ b) $x = -3$ c) $y = 0$ d) $y = -3$

7. What is the slope of the line that is perpendicular to $y = \frac{1}{2}x - 4$? 7.____

- a) $-\frac{1}{2}$ b) 2 c) $\frac{1}{2}$ d) -2

8. What is the slope of the line parallel to $y + 6 = -4(x - 1)$? 8.____

- a) -4 b) 4 c) $\frac{1}{4}$ d) $-\frac{1}{4}$

9. What is the equation of the line with a slope of zero and passing through the point (2,6) ? 9._____

- a) $x = 2$
- b) $y = 2$
- c) $x = 6$
- d) $y = 6$

10. Which equation is in general form? 10._____

- a) $y = 2x + 3$
- b) $-3x + 4y + 24 = 0$
- c) $0.5x = 2y - 2$
- d) $4x - 3y + 24 = 0$

Part B: Long Answer Questions: Complete each of the following in the space provided. Be sure to show ALL necessary workings for full credit. (20 marks)

11. Write the equation of a line in **slope intercept form** that passes through (1, -2) and (4, 5). (3 marks)

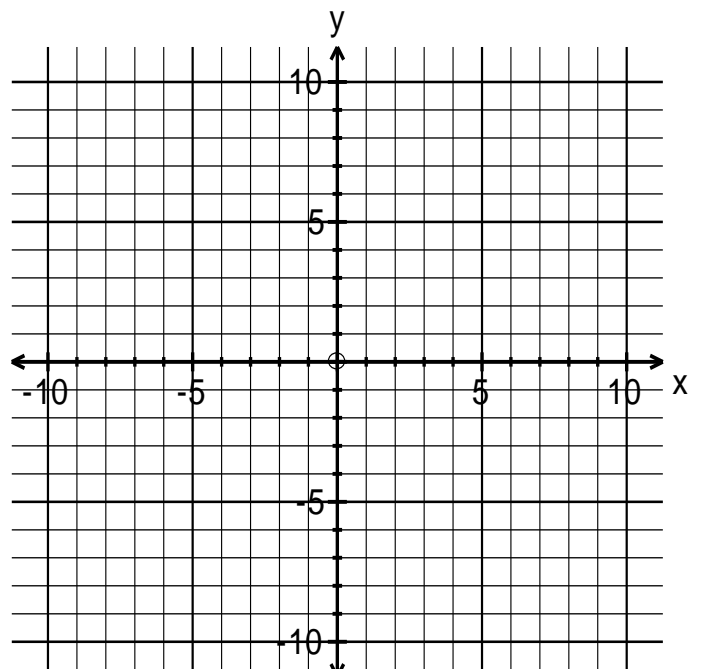
12. Write the equation $y - 3 = 2(x + 1)$ in **general form**. (3 marks)

13a. Change the equation $4x - 3y - 12 = 0$ to **slope intercept form**. (2 marks)

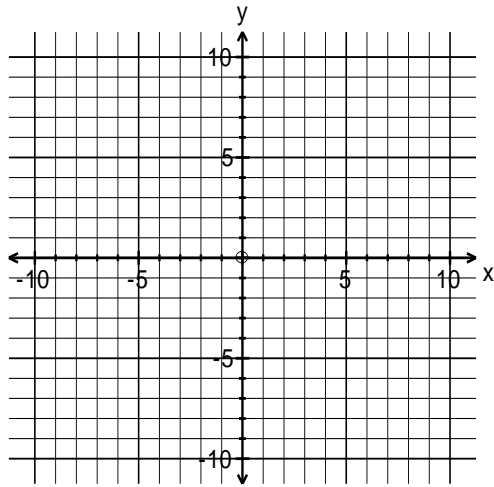
b) State the slope and y- intercept. (2 marks)

slope = _____ y - intercept = _____

c) Graph the line. (2 marks)



14. a) Plots the points on the grid below. $A(-5,1)$, $B(-3,4)$, $C(3,0)$, $D(1,-3)$. Connect the points to form a parallelogram. (2 marks)



- b) Is the parallelogram a rectangle? Show all necessary workings. (3 marks)

15. Determine the slope of each line segment. Is $\triangle RST$ a right triangle? Justify your answer with workings. (3 marks)

