**Pre-Calculus Mathematics 10**

Level

Mark

Total

**Chapter 5 Test**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_**

**Mr. Formaran**

**True or False**

\_\_\_\_\_\_\_\_ 1. Standard Form is written as Ax + By = C,

Icon

Description automatically generatedwhere A, B and C are integers, and A 0.

\_\_\_\_\_\_\_\_ 2. Slope-Intercept Form is written as y = mx + b,

where m is the slope of the line and b is the y-intercept.

\_\_\_\_\_\_\_\_ 3. Standard form of an equation of a line can be written in slope intercept form as

follows: Ax + By = C

C

B

A

B

where the slope of Ax + By = C is – and the y-intercept is

4. In linear equation,

\_\_\_\_\_\_\_4a. A horizontal line can be thought of as all points on a graph

where y has the same value (y = k)

\_\_\_\_\_\_\_4b. A vertical line can be thought of as all points on a graph where x has the same

value (x = k)

\_\_\_\_\_\_\_\_5. The equation y – y1 = m(x – x1) is the point-slope equation of a line.

\_\_\_\_\_\_\_\_6. The notation f(x) is another way of writing y as a function.

**Section 5.1**

1. Graph 5x + 3y = 15

3

4

2. Graph the line through (-3 , -5) with slope .



**Section 5.2**

2x + 3y = 6

-2x + y = 3

1. In the system of equations , determine if the lines are parallel, perpendicular, or neither.

x + 3y = 6

3x - y = 3

2. In the system of equations , determine if the lines are parallel, perpendicular, or neither.

3. Write the equation in point-slope form, slope-intercept and standard form.



a. (3, 4) and (5, 10) b.

m = m =

y – y1 = m(x – x1) y – y1 = m(x – x1)

y = mx + b y = mx + b

Ax + By = C Ax + By = C

**Section 5.3**

1. Write the equation of a line parallel to 2x – 3y = 6,

and which goes through the point (2 , -2).

2. Write the equation of a line perpendicular to 3x + 6y = 7,

and which goes through the point (-2 , 5).

**Section 5.4**

It costs a popcorn vendor $400 to make 100 bags of popcorn and $700 to make 500 bags.

a. Graph the linear relation between

cost and number of bags.

b. Find the cost equation

c. Find the fixed cost

d. Find the cost of 300 bags of popcorn

e. How many bags of popcorn can be bought for $975?

**Section 5.5**

1. Complete the table for f(x) = 2x - 15

|  |  |  |  |
| --- | --- | --- | --- |
| x | 2x - 15 | f(x) | (x , y) |
| 15 |  |  |  |
| 0 |  |  |  |
| -15 |  |  |  |

2. Determine the slope-intercept function f(x) = mx + b if f(2) = 4 and f(4) = 8.