

First Name: _____

Last Name: _____

7.3 - 7.3 Slope-Point Form

Use the following information to answer Q1-Q4:

$x_1 \ y_1 \ x_2 \ y_2$

A line passes through the points (2,3) and (6,5)

Q1: In **Slope-Point Form**, the line can be represented by the equation $(y - a) = \frac{b}{c}(x - d)$, where **a**, **b**, **c**, and **d** are __, __, __, and __.

(Record your **four digit** answer in the Numerical Response boxes below)

5	1	2	6
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$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 3}{6 - 2} = \frac{2}{4} = \frac{1}{2}$$

or

3	1	2	2
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Option #1

$$(y - y_1) = m(x - x_1)$$

$$(y - 5) = \frac{1}{2}(x - 6)$$

abcd = 5126

Option #2

$$(y - y_1) = m(x - x_1)$$

$$(y - 3) = \frac{1}{2}(x - 2)$$

abcd = 3122

Q2: In **Slope y-Intercept Form**, the line can be represented by the equation $y = \frac{e}{f}x + g$, where **e**, **f**, and **g** are __, __, and __.

(Record your **four digit** answer in the Numerical Response boxes below)

1	2	2	
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$$(y - 5) = \frac{1}{2}(x - 6)$$

$$y - 5 = \frac{1}{2}x - 3$$

$$\begin{array}{ccc} +5 & & +5 \end{array}$$

$$y = \frac{1}{2}x + 2$$

efg = 122

or

$$(y - 3) = \frac{1}{2}(x - 2)$$

$$y - 3 = \frac{1}{2}x - 1$$

$$\begin{array}{ccc} +3 & & +3 \end{array}$$

$$y = \frac{1}{2}x + 2$$

efg = 122

Use the following information to answer Q1-Q4:

A line passes through the points (2,3) and (6,5)

Q3: In **General Form**, the line can be represented by the equation $Ax - By + C = 0$, where **A**, **B**, and **C** are __, __, and __.

(Record your **three digit** answer in the Numerical Response boxes below)

1	2	4	
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$$y = \frac{1}{2}x + 2$$

$$-y = -\frac{1}{2}x - 2$$

$$0 = \frac{1}{2}x - y + 2$$

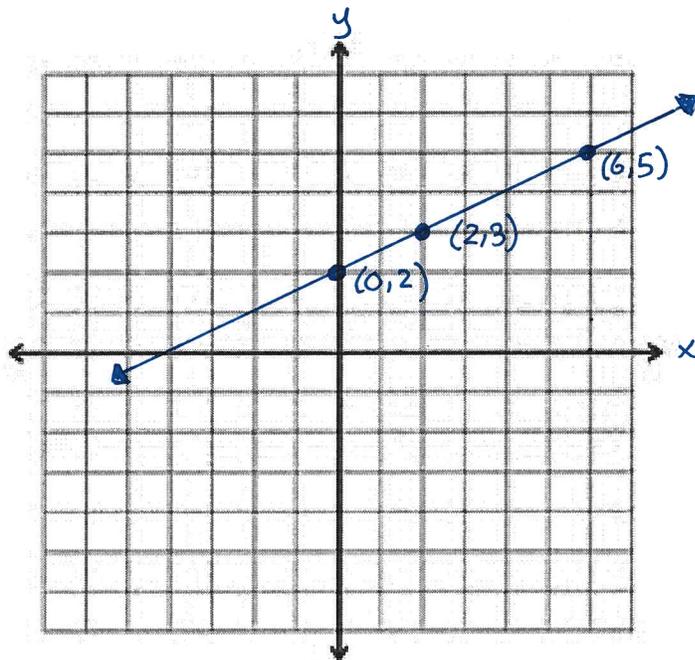
$$\begin{matrix} \times 2 & \times 2 & \times 2 & \times 2 \end{matrix}$$

$$0 = 1x - 2y + 4$$

$$1x - 2y + 4 = 0$$

$$ABC = 124$$

Q4: Graph the line, showing all relevant data points.



MARKING:

- Beginning 0.0 – 1.5
- Progressing 2.0 – 2.5
- Competent 3.0 – 3.5
- Exemplary 4.0