


Review Time...

1)  Review - Coordinate Geometry.pdf

2) **Text: Read Skills Summary p. 387**

Practice Questions p. 388 - 390

Practice Test p. 391

Test Review

Answers must be in general form $Ax+By+C = 0$

1. Find the equation of a line which has x-int = 2 and y-int = 4.
2. Find the equation of the line parallel to $2x-3y+21=0$ that passes through (4,5).
3. Find the equation of a line with a slope equal to $-1/3$ and passes through (3,-8).

Answers must be in general form $Ax+By+C = 0$

1. Find the equation of a line which has x-int = 2 and y-int = 4. $(2, 0)$ $(0, 4)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{4 - 0}{0 - 2} = -2$$

$$y = mx + b$$

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

$$y = -2x + 4$$

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

2. Find the equation of the line parallel to $2x - 3y + 21 = 0$ that passes through $(4, 5)$.

$$\frac{-3y}{-3} = \frac{-2x - 21}{-3}$$

$$y = \left(\frac{2}{3}\right)x + 7$$

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

$$y - 5 = \frac{2}{3}(x - 4)$$

$$3(y - 5) = 2(x - 4)$$

$$3y - 15 = 2x - 8$$

$$-2x + 3y - 15 + 8 = 0$$

$$-2x + 3y - 7 = 0$$

$$2x - 3y + 7 = 0$$

3. Find the equation of a line with a slope equal to $-1/3$ and passes through $(3, -8)$.

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

$$y + 8 = \frac{-1}{3}(x - 3)$$

$$3(y + 8) = -1(x - 3)$$

$$3y + 24 = -x + 3$$

$$x + 3y + 24 - 3 = 0$$

$$x + 3y + 21 = 0$$

$$y = mx + b$$

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

4. Find the equation of a line that passes through $(4, 12)$ and $(3, 7)$.

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{7 - 12}{3 - 4} = \frac{-5}{-1} = 5$$

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

$$y - 12 = 5(x - 4)$$

$$y - 12 = 5x - 20$$

$$-5x + y - 12 + 20 = 0$$

$$-5x + y + 8 = 0$$

$$5x - y - 8 = 0$$

$$y - 7 = 5(x - 3)$$

$$y - 7 = 5x - 15$$

$$-5x + y - 7 + 15 = 0$$

$$-5x + y + 8 = 0$$

$$5x - y - 8 = 0$$

Which graph has the equation $3x+2y-6=0$.

$$y = mx + b$$

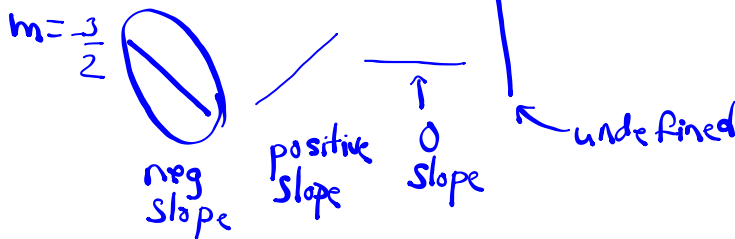
↑ slope ↑ y-int

$$3x + 2y - 6 = 0$$

$$\frac{2y}{2} = -\frac{3x}{2} + \frac{6}{2}$$

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

$$y\text{-int} = 3$$



Given $-6x + 2y - 8 = 0$ find...

$$y = -x + \text{---}$$

↑ slope ↑ y-int

a) slope = 3

$$\frac{2y}{2} = \frac{6x}{2} + \frac{8}{2}$$

$$y = 3x + 4$$

b) y-int = 4

c) x-int let $y=0$

$$y = 3x + 4$$

$$0 = 3x + 4$$

$$3x + 4 = 0$$

$$3x = -4$$

$$\frac{3x}{3} = \frac{-4}{3}$$

$$x = -\frac{4}{3}$$

$$\left(-\frac{4}{3}, 0\right)$$

Attachments

Review - Coordinate Geometry.pdf