First name: _____ Last name: _____ Student ID: _____

Chapter 5 Analytic Geometry (2) Homework

1. Express in the form y = mx + b.

(a) 2x + y = 3

(b) 3x − y = 7

(c) x + 2y = 4

(d) 3x − 4y = 12

2. State the slope and y-intercept of each of the following.

(a) y = 7x + 6

(b) 3x + y = 14

(c) 4x− y− 7 = 0

(d) y = (1/2)x− 4

(e) y = -2

(f) x = 7

3. Change the following equations into **standard form.**

a) $\frac{1}{3}$ x - $\frac{2}{5}$ y + $\frac{1}{4}$ = 0

b) 3.1 x + 4y = 6.2

c) y = -4x +2

d) y = 14x + $\frac{7}{2}$

4. Determine the slopes of the line segments joining the following pairs of points. Then, find the equations of the lines.

1) A(3, -4), B(-2, 7)

2) A(-2, 5), B(5, -8)

5. Determine an equation of the line through the given point having the given slope

1) (4, 6); m = 5

2) (-2, 5); m = - 3

6. Find y if point (2, y) lies on the line joining (3, -2) and (-7, 8), then find the equation of the line.

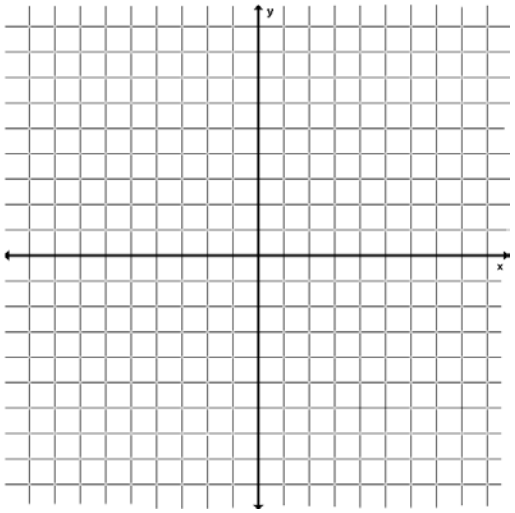
7. Find the equation of lines for the following:

a. The x and y-intercepts of the line are 4 and 3, respectively.

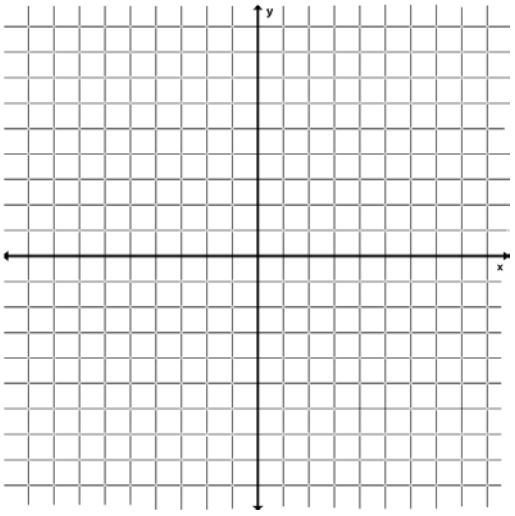
b. The line has undefined slope and passes through the point (0, 3).

8. Use the slope y –intercept method to graph:

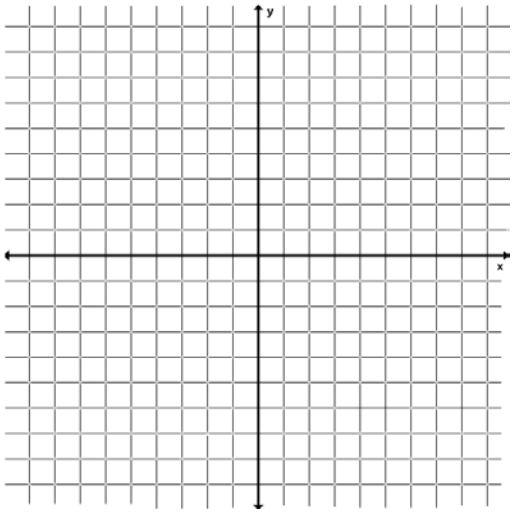
a) y= -4x + 3



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



c) 16y – 8x = 32



d) 3x – 5y + 1 = 0