Dawson College: Algebra: 201-007-50 02

September 15, 2009

Name: SOLUTIONS

Student ID: _____

Quiz 3

Question 1. *(4 marks)* Find the intercepts (indicate which is which) and graph the line $y+2=\frac{1}{2}(x-2)$

x-int: $y=0$

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

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

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

$6=x$

$\therefore (6,0)$

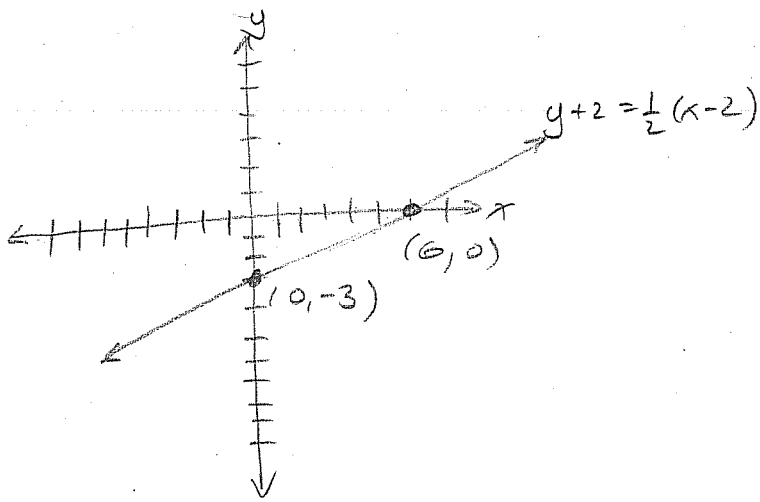
y-int: $x=0$

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

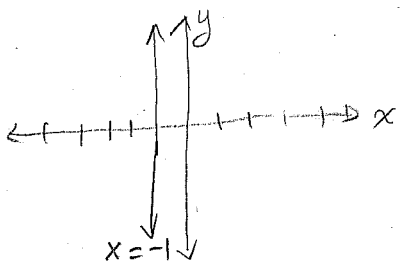
$y+2=-1$

$y=-3$

$\therefore (0,-3)$



Question 2. *(2 marks)* Graph the line $x=-1$. What is the slope of this line.



SLOPE: UNDEFINED

Question 3. *(4 marks)* Find the slope-intercept form and the point-slope form (indicate which is which) of the equation of the line through the points $(-4,3)$ and $(-2,5)$.

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

SLOPE-INTERCEPT FORM

$y=mx+b$

$3=1(-4)+b$

$7=b$

$\boxed{y=x+7}$

POINT-SLOPE FORM

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

$y-3=(1)(x-(-4))$

$\boxed{y-3=(x+4)}$