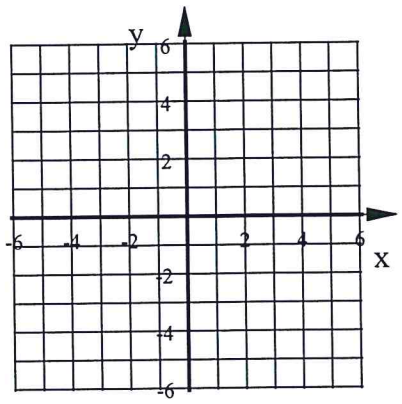
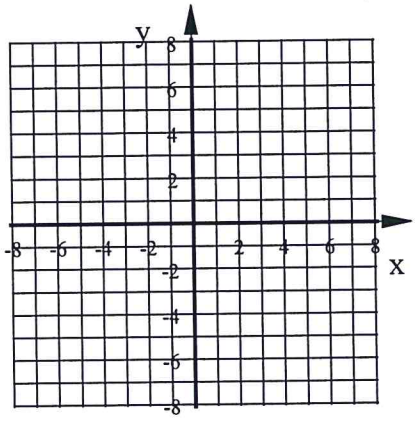
Algebra 1 6th Bellwork Wednesday, January 6, 2016

Graph each using at least 5 points.

1. $y = -2|x - 3| + 5$



2. $f(x) = 3(x+2)^2 - 6$



3. Use these functions: $f(x) = 2x + 3$ $g(y) = y^2 - 5y$

a. Find $g(-2)$.

b. Find x if $f(x) = 21$

c. Find $2f(6) + 3g(1)$

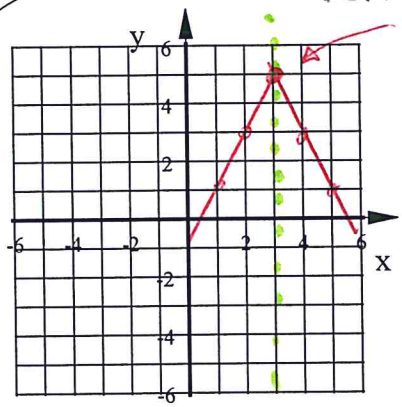
Algebra 1 6th Bellwork Wednesday, January 6, 2016 Answers

Graph each using at least 5 points.

1. $y = -2|x - 3| + 5$ ← 5 up, ↳ 3 RT

opens down sides have a slope of $\frac{2}{1}$

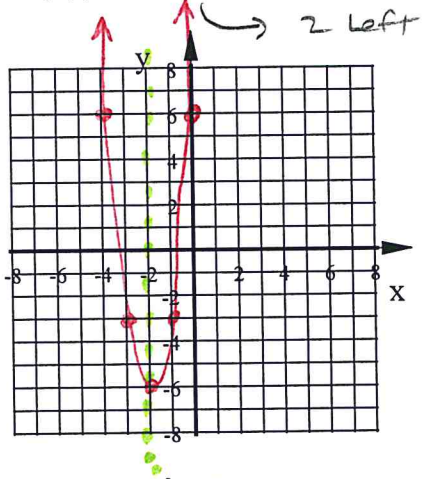
Vertex (3,5)



2. $f(x) = 3(x+2)^2 - 6$ ← 6 down, ↳ 2 Left

Vertex (-2,-6)

x	y
-1	-3
0	6



3. Use these functions: $f(x) = 2x + 3$ $g(y) = y^2 - 5y$

a. Find $g(-2)$.

$g(-2) = (-2)^2 - 5(-2) = 4 + 10 = 14$

b. Find x if $f(x) = 21$

$21 = 2x + 3$

$-3 \quad -3$

$\frac{18}{2} = \frac{2x}{2}$

$x = 9$

c. Find $2f(6) + 3g(1) = 30 + -12 = 18$

$f(6) = 2(6) + 3 = 12 + 3 = 15$

$2f(6) = 2(15) = 30$

$g(1) = (1)^2 - 5(1) = 1 - 5 = -4$

$3g(1) = 3(-4) = -12$