Algebra 1 Bellwork Monday, December 7, 20145

1. Use these two functions for parts a to c: $k(w) = 10w - 6$ $g(c) = 2c^2 + 7$

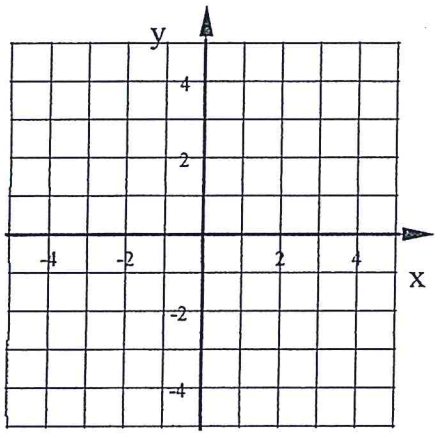
a) $7k(2) + 3g(-4) =$

b) Find w if $k(w) = 47$

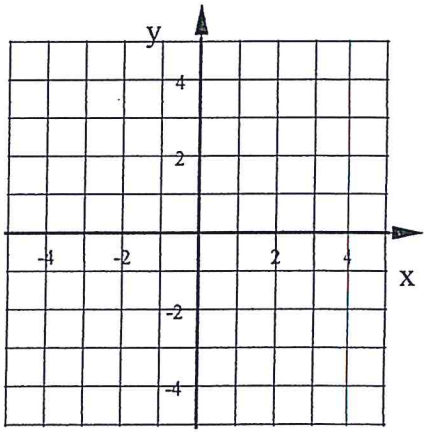
c) Find the range of $g(c)$ given this domain: $\{-3, 1, 3\}$

2. Graph each this function:

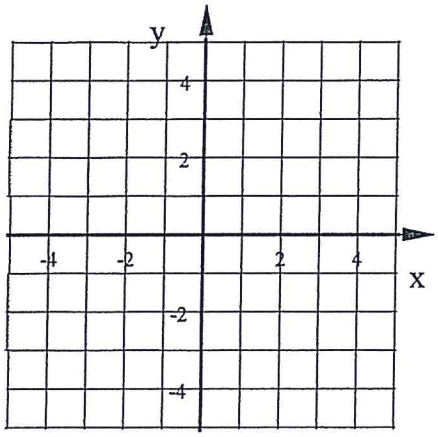
a) $y = 4|x + 3| - 5$



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



c) $y = -2x^2 + 4x + 5$



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Answers

1. Use these two functions for parts a to c: $k(w) = 10w - 6$ $g(c) = 2c^2 + 7$

a) $7k(2) + 3g(-4) =$ 215

$98 + 117 =$

$k(2) = 10(2) - 6 = 20 - 6 = 14$

$7 \cdot k(2) = 7 \cdot 14 = 98$

$g(-4) = 2(-4)^2 + 7 = 2(16) + 7 = 32 + 7 = 39$

$3 \cdot g(-4) = 3(39) = 117$

b) Find w if $k(w) = 47$

$47 = 10w - 6$

$+6 \quad +6$

$\frac{53}{10} = \frac{10w}{10}$

$w = 5.3$

c) Find the range of $g(c)$ given this domain: $\{-3, 1, 3\}$

$g(-3) = 2(-3)^2 + 7 = 2(9) + 7 = 18 + 7 = 25$

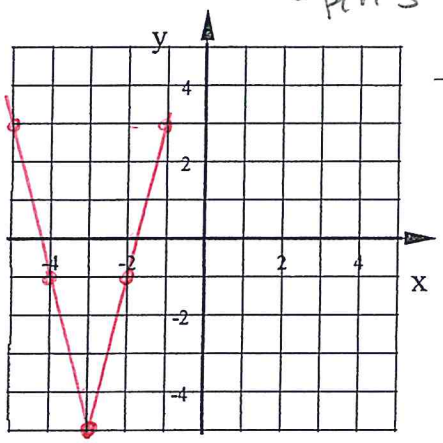
$g(1) = 2(1)^2 + 7 = 2(1) + 7 = 2 + 7 = 9$

$g(3) = 2(3)^2 + 7 = 2(9) + 7 = 18 + 7 = 25$

Range: $\{9, 25\}$

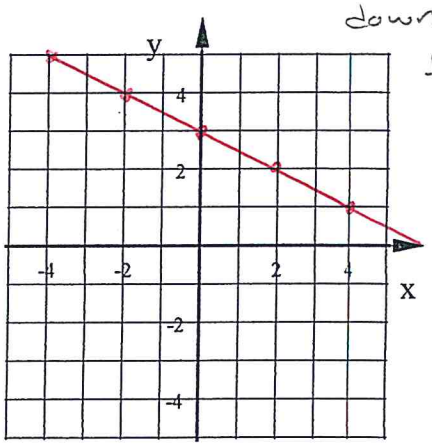
2. Graph each this function:

a) $y = 4|x + 3| - 5$ V-shape opens up

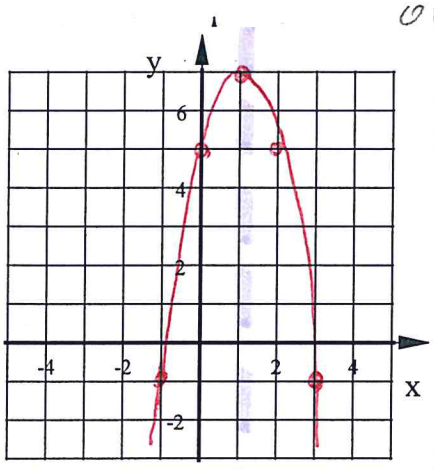


X	Y
-2	-1
-1	3
0	7
1	11
2	15
-3	-5
-4	-1
-5	3

b) $y = -\frac{1}{2}x + 3$ Line moving down & to the right



c) $y = -2x^2 + 4x + 5$ parabola opening down



X	Y
-2	-11
-1	-1
0	5
1	7
2	5