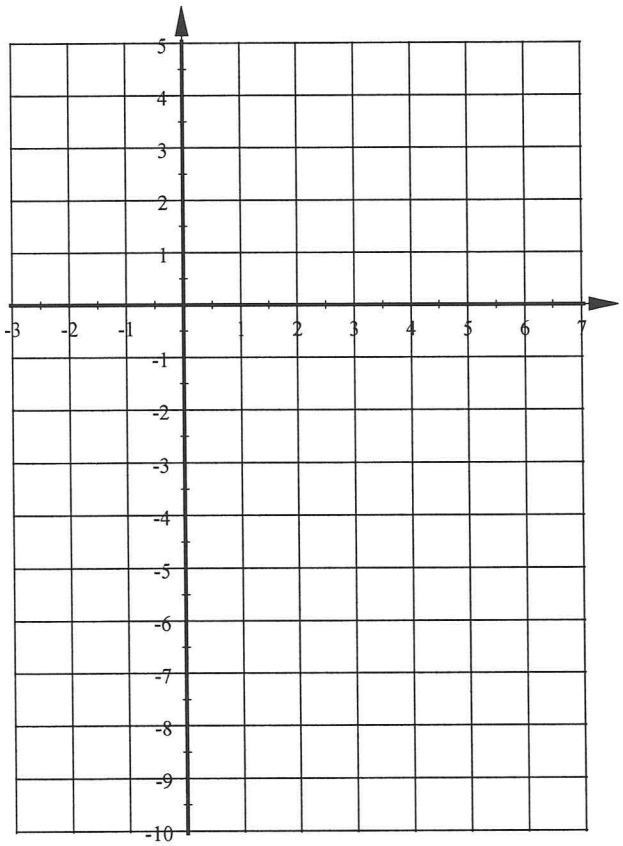
Algebra 2 Bellwork Friday, October 31, 2014

1. Find the x-intercepts of this quadratic: $y = (2x - 7)(6x + 5)$

2. Find the solutions to this equation: $0 = 5x(9x - 8)$

3. Given the following quadratic: $y = (x + 1)(x - 5)$
Find the x-intercepts
Find the equation for the LOS
Find the coordinates of the vertex
Graph the parabola using 5 points.



4. Factor each completely.

a) $108m^3 - 147m$

b) $12c^2 + 34c - 28$

Algebra 2 Bellwork Friday, October 31, 2014 ANSWERS

1. Find the x-intercepts of this quadratic: $y = (2x - 7)(6x + 5)$

$2x-7=0$ $\quad 6x+5=0$

$x = 7/2$ $\quad x = -5/6$

X-INTS $\frac{7}{2}$ & $-\frac{5}{6}$

2. Find the solutions to this equation: $0 = 5x(9x - 8)$

$5x=0$ $\quad 9x-8=0$

$x=0$ $\quad x=8/9$

SOL: $x = 0, 8/9$

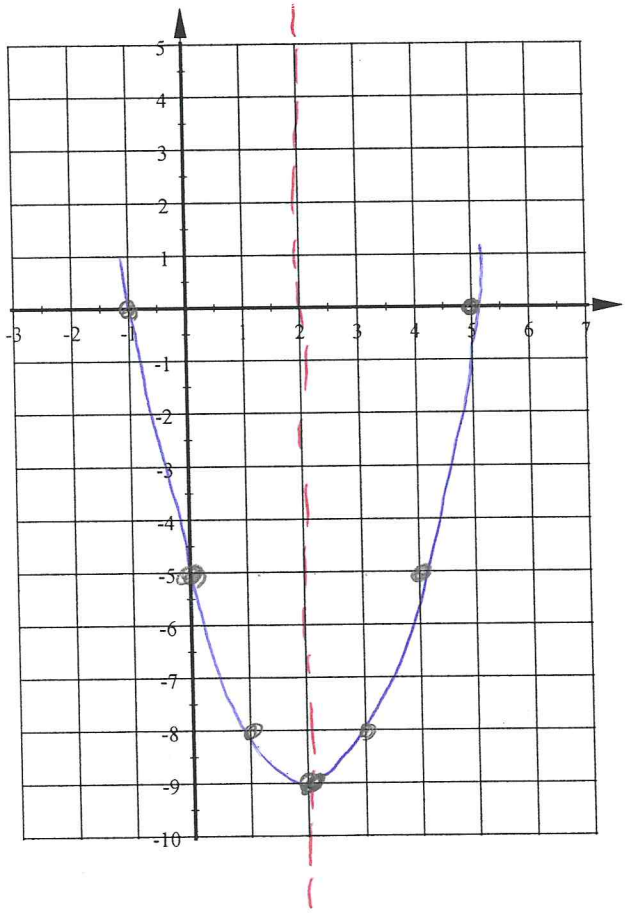
3. Given the following quadratic: $y = (x + 1)(x - 5)$ $= x^2 - 4x - 5$

Find the x-intercepts -1 & 5

Find the equation for the LOS $x = \frac{-1+5}{2} = \frac{4}{2} = 2$

Find the coordinates of the vertex $(2, -9)$ $\rightarrow (2+1)(2-5) = (3)(-3) = -9$

Graph the parabola using 5 points.



y-INT: $(0+1)(0-5)$

$(1)(-5) = -5$

$a = 1$

1 | 1 → 1 | 1

2 | 4 → 2 | 4

(or)

X	Y
1	-8
0	-5

4. Factor each completely.

a) $108m^3 - 147m$ GCF = $3m$

$3m(36m^2 - 49)$

$3m(6m \pm 7)$

b) $12c^2 + 34c - 28$ GCF = 2

$2(6c^2 + 17c - 14)$

$2(3c - 2)(2c + 7)$

	3c	-2
2c	$6c^2$	$-4c$
+7	$+21c$	-14

-84

$+21$ $\quad -4$

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