Before we begin, are there any questions from last day's work?

See next screen

Today's Learning Goal(s):

By the end of the class, I will be able to:

a) find the x-intercepts of a quadratic relation, *if they exist*.

b) graph a quadratic relation using factored form.

6.2 Homework (2 days ago)

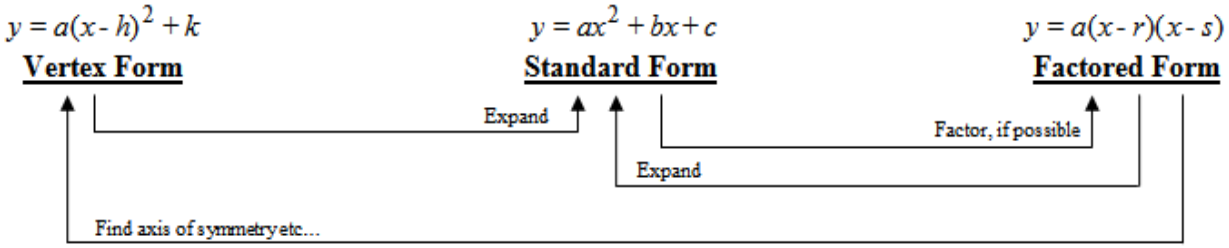
pp. 279-280 #1adg, 2aef
(do not produce a formal "check"),
3adef, 4ab, 5bcd, 6 (HINT: common factor first),
7, 8, 14
p. 241 #14
p. 247 #13
***Enrichment*:** p. 281 #19, 20

Done Spring 2016

4.5 Homework (yesterday)

Read "Key Concepts" on p.191
pp. 192-193 #3, 4abc, 5, 6, 8, 10, 11
***Enrichment*:** p. 193 #12, 13, 15

MPM 2DI 6.3 Graph Quadratics Using the x-Intercepts Date: May 5 /16



Ex. 1 Find the x-intercepts.

a) $y = 6x^2 + 5x - 14$

$0 = (6x-7)(x+2)$

$6x-7=0$ or $x+2=0$

$6x = 7$ $x = -2$

$x = \frac{7}{6}$

b) $y = x^2 + 9x + 0$

$= (x+0)(x+9)$

$0 = x(x+9)$

$x = 0$ $x = -9$

c) $y = 2(x-3)(-4-x)$

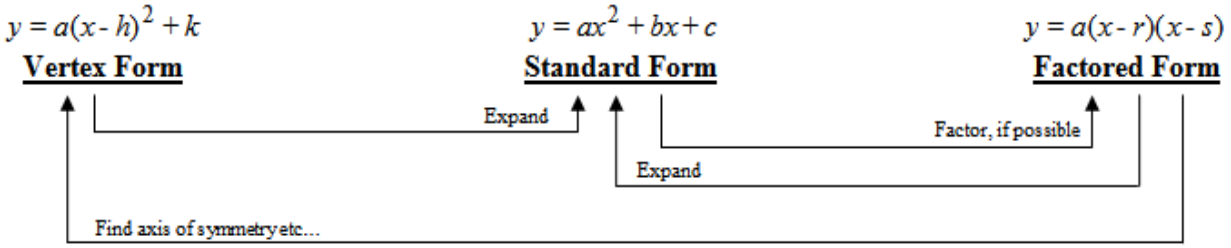
$0 = 2(x-3)(-4-x)$

$x-3=0$ $-4-x=0$

$x = 3$ $-4 = x$

$\frac{-x}{-1} = \frac{4}{-1}$

$x = -4$



Ex. 2 Find the x-intercepts and the vertex, then graph.

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

$= -(x^2 + 4x - 5)$

$0 = -1(x-1)(x+5)$

$x = 1$ or $x = -5$

AOS: $x = \frac{1+(-5)}{2}$

$x = -2$

b) $y = x^2 - 6x + 10$

$= (x-)(x-)$

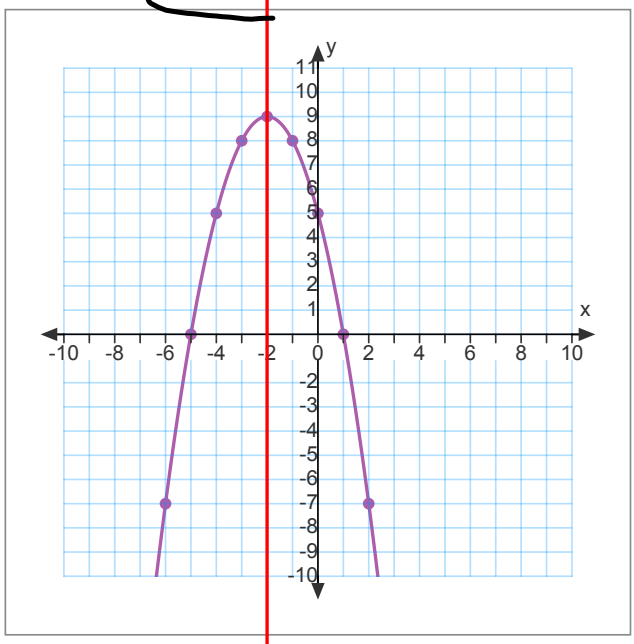
D.N.F. 1 10, 2 5

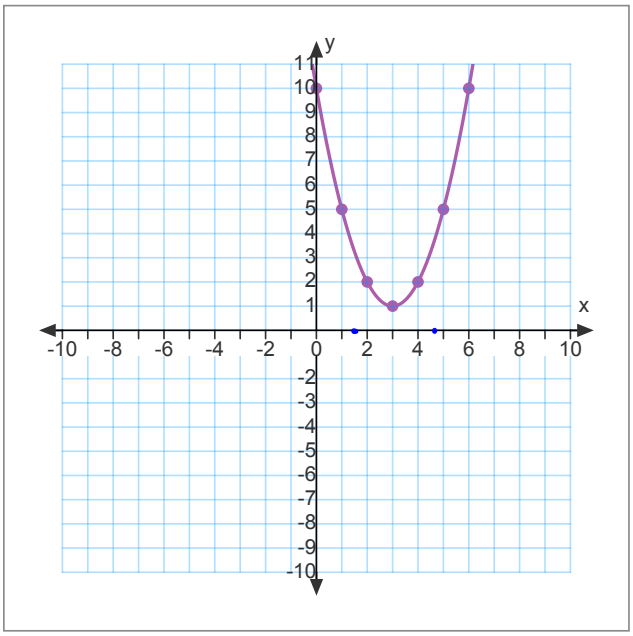
c) $y = (x-3)^2 + 1$

$= x^2 - 6x + 9 + 1$

$= x^2 - 6x + 10$

$V(3, 1)$





$y = -(x+5)(x-1)$

$= -(-2+5)(-2-1)$

$= -(3)(-3)$

$= 9$

$\therefore V(-2, 9)$

Today's entertainment: **Read "Key Concepts" on p.288**

Graph Paper Required

pp. 289-290 #3bd (GRAPH both instead of sketching), 5ac (SKETCH both – don't graph. Also, look in the answers section instead of using a graphing calculator), 6ab,10, 12, 14
p. 241 #13
***Enrichment*:** p. 291 #17 to 20

GRAPH vs. SKETCH

Video example link on next slide.