

11)

$a = 0.5 \Rightarrow x = 0.5$

$y = 2(x-3)(x+2)$

$y = 2(0.5-3)(0.5+2)$

$y = 2(-2.5)(2.5)$

$y = -12.5$

vertex $(0.5, -12.5)$

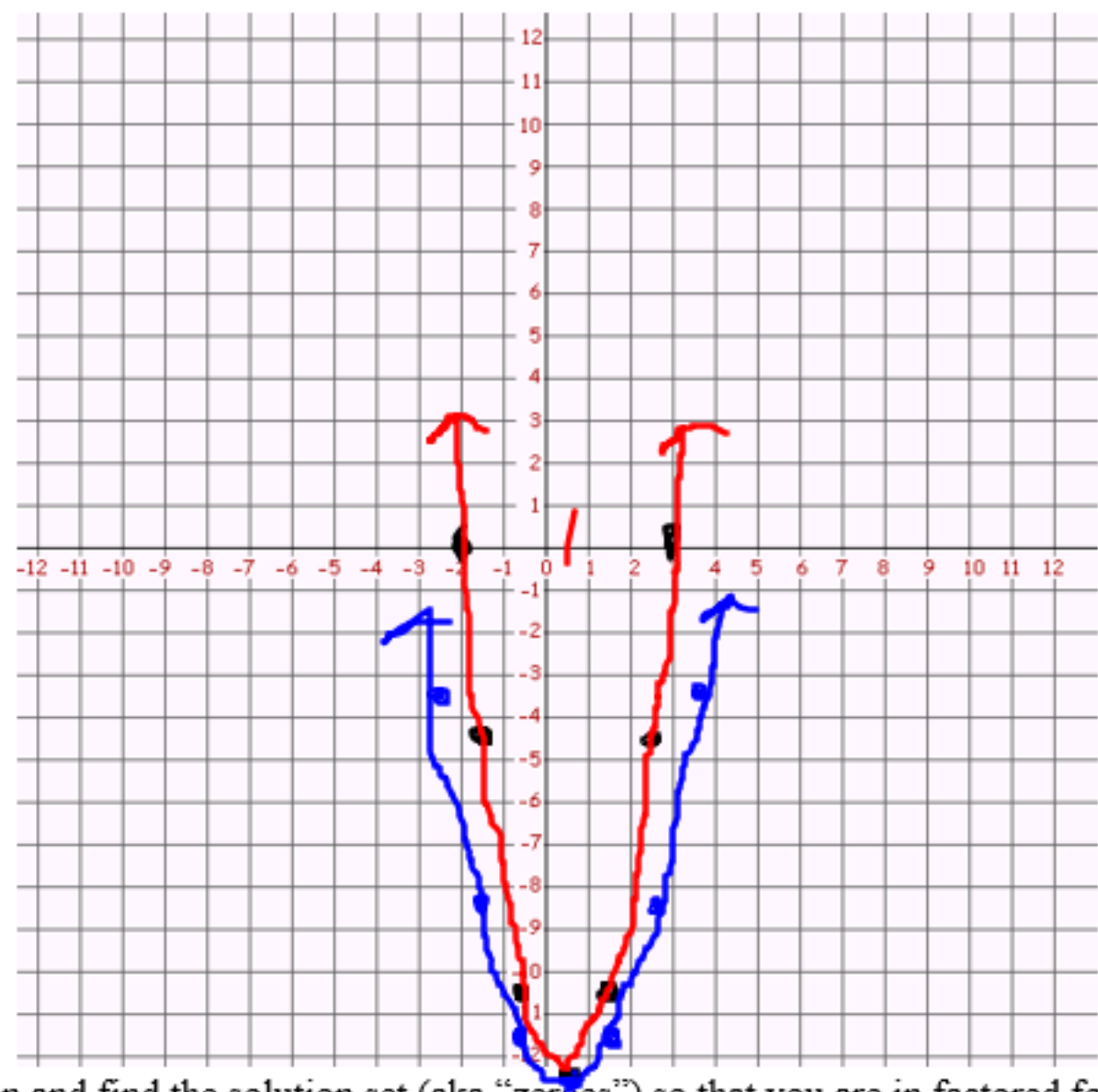
axis of symmetry in for the x value and finding y. Use the step pattern to graph the rest of the parabola.

~~a) $y = (x+3)(x-1)$~~ b) $y = 2(x-3)(x+2)$ ~~c) $y = 1/2(x-4)(x-8)$~~

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

$x+2=0$
 $x=-2$

zeros $\{3, -2\}$



111)

over 1, up $1 \times 2 = 2$

over 1, up $3 \times 2 = 6$

$y = 1$

$x = (x-3)(x-5)$
 $x-3=0$
 $x=3$
 zeros $\leq 3, 5$
 $a.o.s. \rightarrow x=4$
 $y = x^2 - 8x + 15$
 $y = 4^2 - 8(4) + 15$
 $y = 16 - 32 + 15$
 $y = -1$
 vertex $(4, -1)$

$\begin{array}{r} 15 \\ -8 \\ \hline 7 \end{array}$
 Quadratics Review Continued

Factor each expression and find the solution set (aka "zeros") so that you are in factored form. Next, find the vertex by substituting the axis of symmetry in for the x value and finding y. Finally, state the y intercept (hint- make x=0 and solve for y).

a) $y = x^2 - 8x + 15$

$y = x^2 - 8(0) + 15$
 $x = 15$
 y-int $(0, 15)$

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

c) $y = 2x^2 + 12x + 10$

c) $y = 3x^2 - 6x + 4$