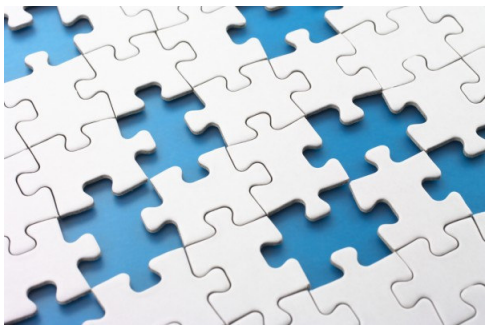
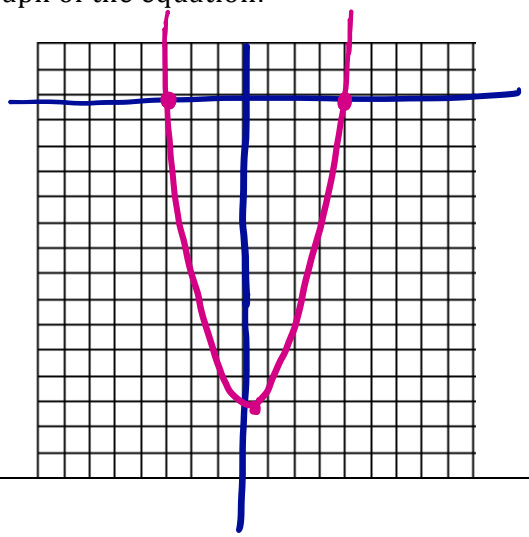
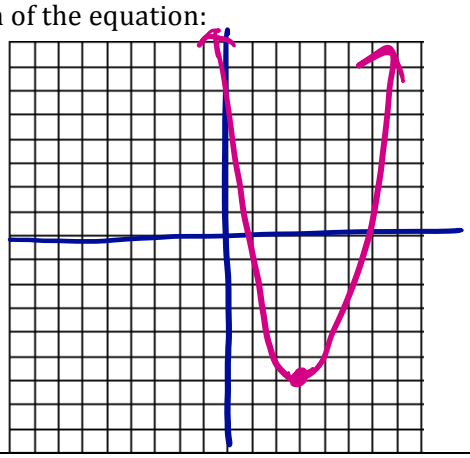
2.10 I've Got a Fill-in

A Practice Understanding Task



For each problem below, you are given a piece of information that tells you a lot. Use what you know about that information to fill in the rest.

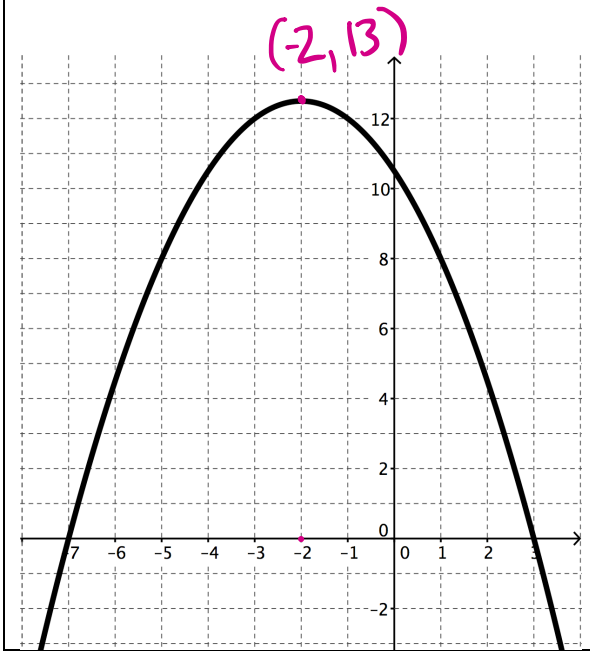
1.	You get this:	Fill in this:
	$y = x^2 - x - 12$	Factored form of the equation: $y = (x-4)(x+3)$ $x = .5$ $y = (.5-4)(.5+3)$ $(-3.5)(3.5) = -12.25$ Graph of the equation: 

2. You get this:	Fill in this:
$y = x^2 - 6x + 3$ $y = (x^2 - 6x + 9) + 3 - 9$ $(x-3)^2 - 6$ Vertex $(3, -6)$	Vertex form of the equation: $y = (x-3)^2 - 6$ Graph of the equation: 

Give VC by $\frac{1}{2}$

3. You get this:	Fill in this:
 $(2, -3)$	Vertex form of the equation: $y = \frac{1}{2}(x-2)^2 - 3$ Standard form of the equation: $\frac{1}{2}(x-2)(x-2) - 3$ $\frac{1}{2}(x^2 - 4x + 4) - 3$ $\frac{1}{2}x^2 - 2x + 2 - 3$ $y = \frac{1}{2}x^2 - 2x - 1$

V.C. by $\frac{1}{2}$

4.	You get this:	Fill in this:
		Factored form of the equation: $y = -\frac{1}{2}(x+7)(x-3)$ $y = -\frac{1}{2}(x^2+4x-21)$
		Standard form of the equation: $y = -\frac{1}{2}x^2 - 2x + \frac{21}{2}$

5.	You get this:	Fill in this:
	$y = -x^2 - 6x + 16$ $y = -(x^2+6x-16)$ $y = -(x^2+6x+9)+16+9$	Either form of the equation other than standard form. $y = -(x+8)(x-2)$ oe $y = -(x+3)^2 + 25$
		Vertex of the parabola $(-3, 25)$
		x-intercepts and y-intercept $(-8, 0)$ $(2, 0)$ $(0, 16)$

6.	You get this:	Fill in this:
	$y = 2x^2 + 12x + 13$ doesn't factor $y = 2(x^2 + 6x + 9) + 13 - 18$ $2(x+3)^2 - 5$	Either form of the equation other than standard form. $y = 2(x+3)^2 - 5$ Vertex of the parabola $(-3, -5)$ ~~x-intercepts~~ and y-intercept $(0, 13)$

7.	You get this:	Fill in this:
	$y = -2x^2 + 14x + 60$ $y = -2(x^2 - 7x - 30)$ $y = -2(x-10)(x+3)$ $x = \frac{-14}{2(-2)} = \frac{-14}{-4} = \frac{7}{2}$ $y = -2(\frac{7}{2})^2 + 14(\frac{7}{2}) + 60$ $y = \frac{169}{2}$	Either form of the equation other than standard form. $y = -2(x-10)(x+3)$ Vertex of the parabola $(\frac{7}{2}, \frac{169}{2})$ $(3.5, 84.5)$ x-intercepts and y-intercept $(10, 0)$ $(-3, 0)$ $(0, 60)$