DAY 6 – Quadratics in Factored Form

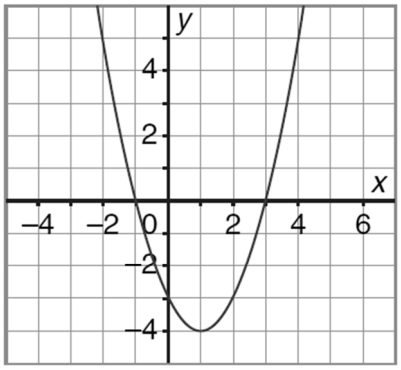
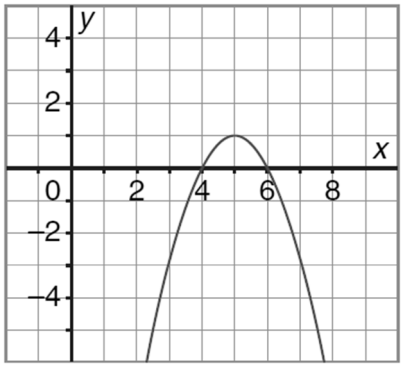
1. Determine the zeros of the graph of each equation.

a. $y=(x-2)(x-5)$	b. $y=(x-7)(x+1)$	c. $y=x(x-10)$

2. Write each equation in factored form. Then determine the zeros of its graph.

a. $y=x^2-10x+9$	b. $y=x^2-4$	c. $y=x^2-9x$

3. Write the equation of each quadratic relation in factored form. Expand each to standard form.

	a. 	b. 
Factored Form		
Standard Form		

4. The equation of a quadratic relation in standard form is $y = 4x^2 - 24x + 36$.

   a. Use the factored form of the equation to explain why the graph of the relation has only one *x*-intercept.

   b. What is the *x*-intercept? _____

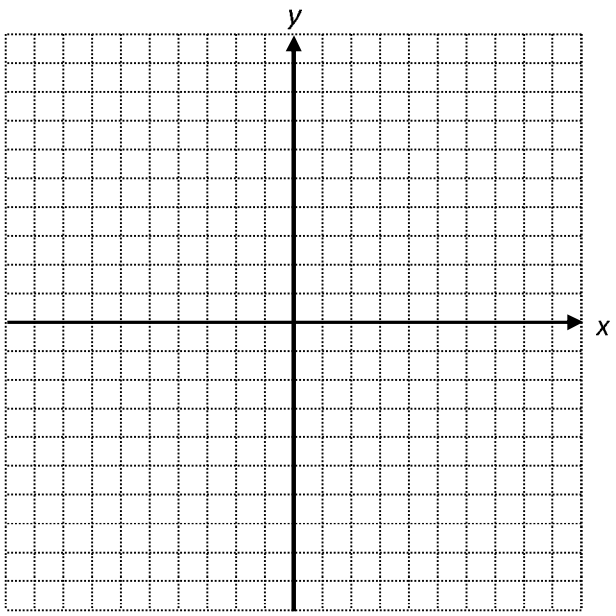
   How would the graph show this? _____

   _____

5.

   a. Sketch the graph of $y = x^2 + 4$ for *x* from –3 to 3.

x	$x^2 + 4$	*y*
–3		
–2		
–1		
0		
1		
2		
3		



   b. Use the graph to explain why $y = x^2 + 4$ cannot be written in factored form