

TSI Review – Systems and Vertex Form of a Quadratic

1. A number is 3 more than another number. Four times the smaller number is two times the larger number. What are the two numbers?:

Answer: _____

2. Solve:

$$(x + 2)^2 - 3 = 0$$

Solution(s): _____

3. Solve:

$$3L + 2S = 55$$

$$L + S = 25$$

Answer: _____

4. Number of Solutions:

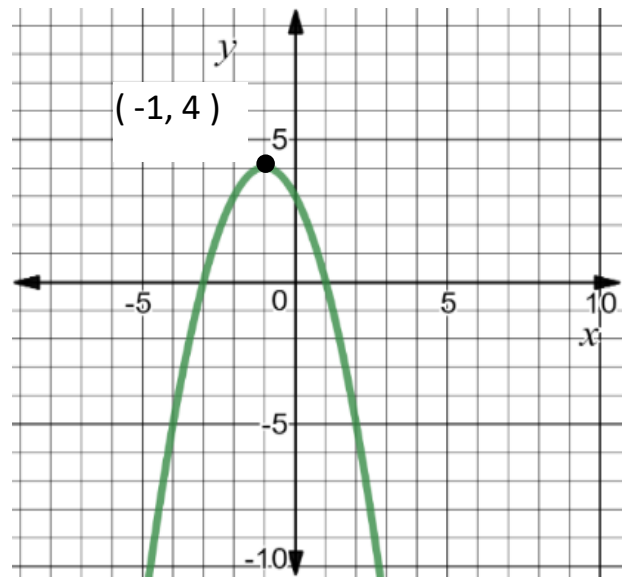
$$-3 = 5$$

$$7 = 7$$

$$x = 5$$

5. What is a possible transformation equation given:

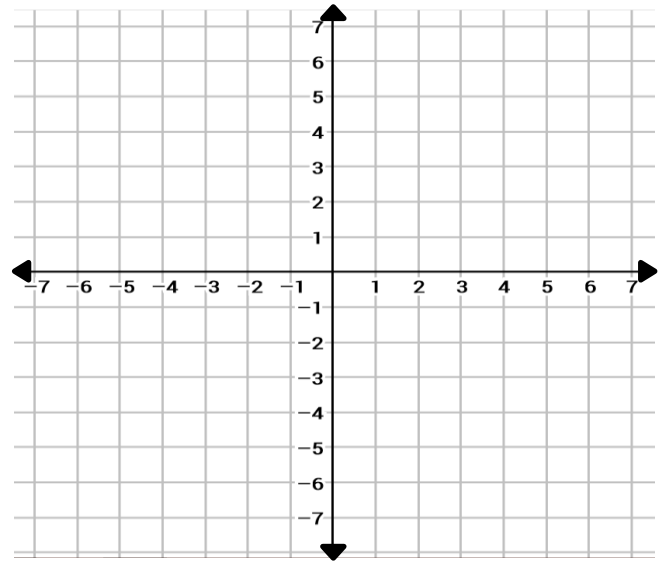
$h =$
 $k =$



Equation: _____
hint: $y = \pm a(x - h)^2 + k$

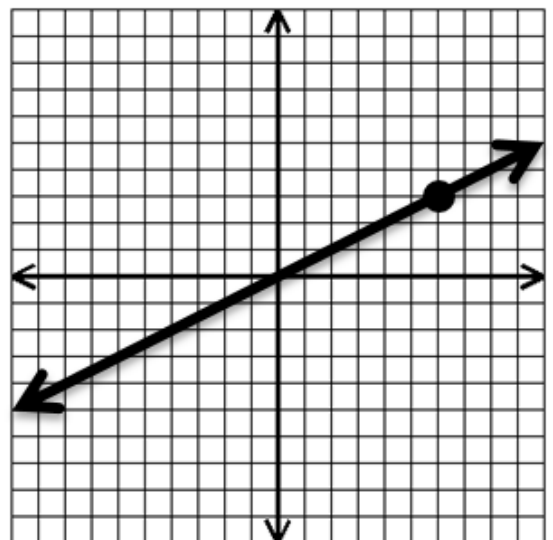
6. List the vertex and sketch the graph of

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



Vertex: _____

7. What is the Equation of the line?



Equation: _____