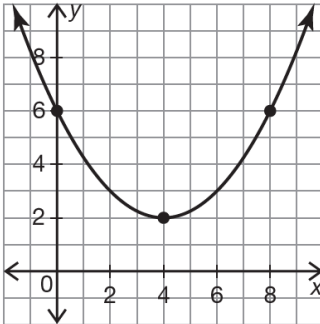


Quadratics Homework #4

Directions: Circle the best possible equation for each of the graphs and explain your choice.

1.

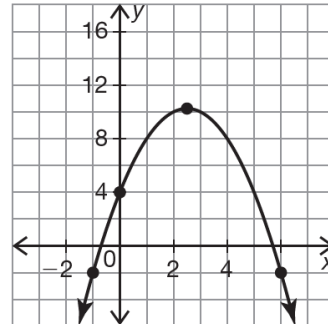


- $f(x)=3(x-4)^2+2$
- $g(x)=3(x+4)^2+2$
- $h(x)=(x+4)(x+2)$
- $j(x)=(x-4)(x-2)$

I chose this function because _____

_____.

2.



- $m(x)= -(x-2.5)^2+4$
- $n(x)= -(x-6)(x+1)$
- $p(x)= -x^2+3x+4$
- $q(x)=(x-0.9)(x+5.9)$

I chose this function because _____

_____.

Directions: Determine what form each quadratic function is in and convert them into the other 2 forms.

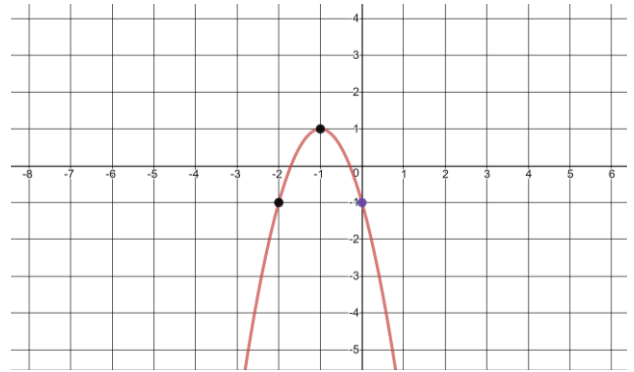
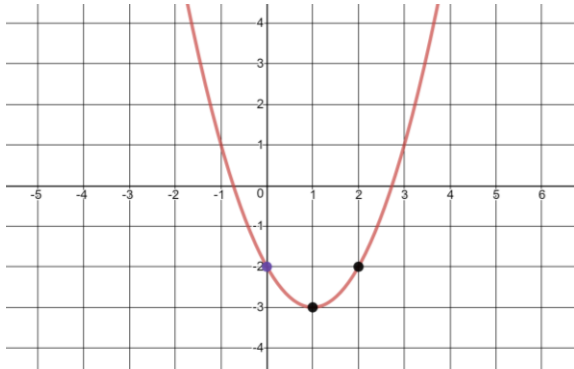
1. $f(x)=4x^2-32x+48$

2. $g(x)=3(x+4)(x+2)$

Directions: Graph each transformation by using the reference points provided.

1. $g(x) = \frac{1}{3}f(-x) + 2$

2. $g(x) = -3f(x + 2) - 1$



Directions: Write a quadratic function that represents each problem situation.

1. Yave, Angel, and Brandon were playing soccer on the field. Angel kicked a soccer ball off of a 32 inch stool on the goal line. When the ball was 2 inches from the stool, it was 54 inches in the air. After the ball flew 4 more inches from the stool, it was 26 inches in the air.

2. Eli flew a toy helicopter outside of his house. When the helicopter was 3 feet from the house, the helicopter was 6 feet in the air. The toy helicopter hit its maximum height of 14 feet when it was 5 feet away from the house.