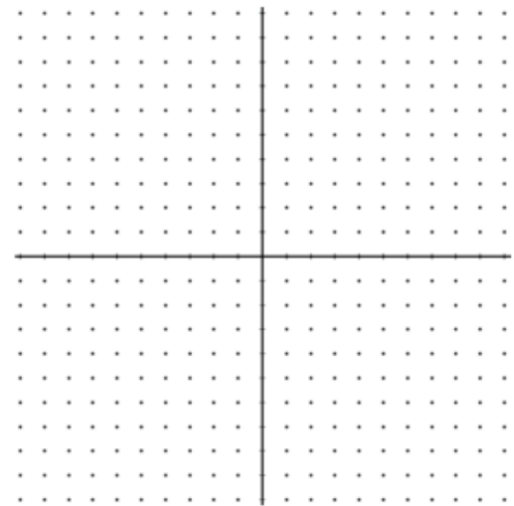
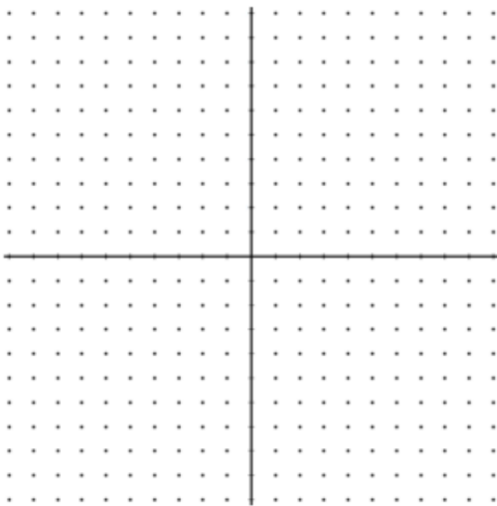


For each factored form equation do all of the following:

- Identify the vertex (find the average of your roots)
- Create a table of values (put the vertex in the middle)
- Graph your parabola (Use an appropriate scale on your graph)
- Verify your graph at desmos.com
- Identify all of the listed characteristics
- Rewrite the equation in vertex form $y = a(x - h)^2 + k$
- Identify the transformations of your graph from the parent function $y = x^2$

#1) $y = (x - 6)(x + 2)$

#2) $y = -1(x - 3)(x - 1)$



Vertex: (,)

	x	Y
Domain:		
Range:		
x-int:		
y-int:		

Vertex: (,)

	x	Y
Domain:		
Range:		
x-int:		
y-int:		

Max: Min: Axis of Symmetry:

Max: Min: Axis of Symmetry:

Interval of Increase:

Interval of Increase:

Interval of Decrease:

Interval of Decrease:

Positive: Negative:

Positive: Negative:

End Behavior: Vertex Form:

End Behavior: Vertex Form:

As $x \rightarrow -\infty$ $y \rightarrow$

As $x \rightarrow -\infty$ $y \rightarrow$

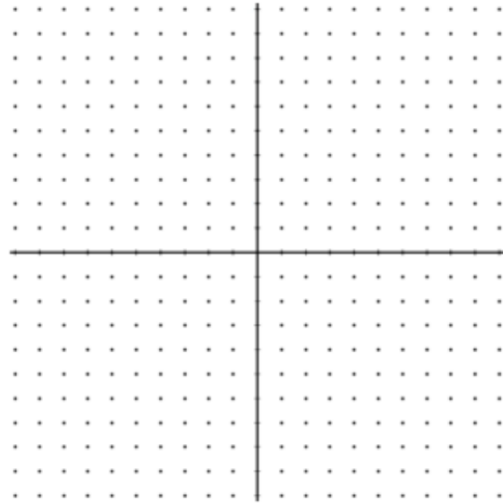
As $x \rightarrow \infty$ $y \rightarrow$ Transformations:

As $x \rightarrow \infty$ $y \rightarrow$ Transformations:

#3) $y = (x + 2)(x + 4)$

Vertex: (,)

x	Y



Domain:

Range:

x-int:

y-int:

Max:

Min:

Axis of Symmetry:

Interval of Increase:

Interval of Decrease:

Positive:

Negative:

End Behavior:

Vertex Form:

As $x \rightarrow -\infty$ $y \rightarrow$

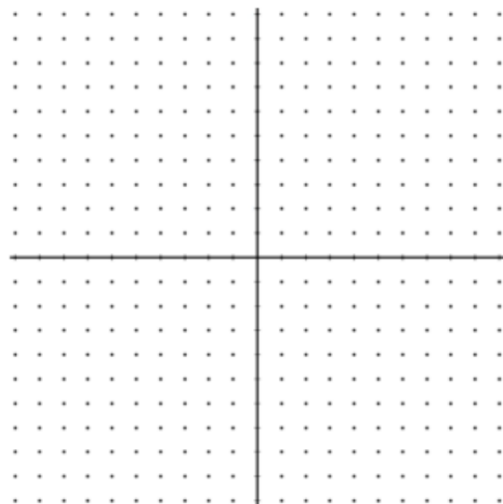
Transformations:

As $x \rightarrow \infty$ $y \rightarrow$

#4) $y = -1(x + 5)(x - 1)$

Vertex: (,)

x	Y



Domain:

Range:

x-int:

y-int:

Max:

Min:

Axis of Symmetry:

Interval of Increase:

Interval of Decrease:

Positive:

Negative:

End Behavior:

Vertex Form:

As $x \rightarrow -\infty$ $y \rightarrow$

Transformations:

As $x \rightarrow \infty$ $y \rightarrow$