Square function

Parent Function equation: _____

Table of values for parent function:

x	-2	-1	0	1	2
y					

Graph of Parent function:

Analysis of the Parent Function:

Domain:

Range:

Where Increasing:

Where Decreasing:

Where Positive:

Where Negative:

Vertex located at:

Absolute Min/Max Location:

y-intercept:

x-intercept:

Average Rate of change from x = 0 to x = 1:

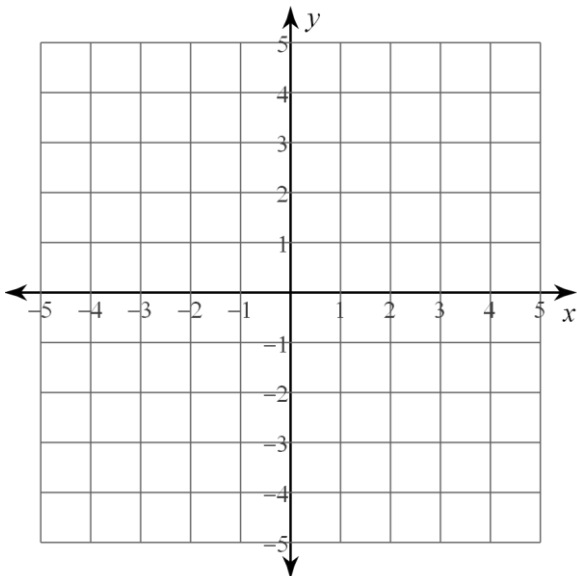Average Rate of change from x = 0 to x = 2
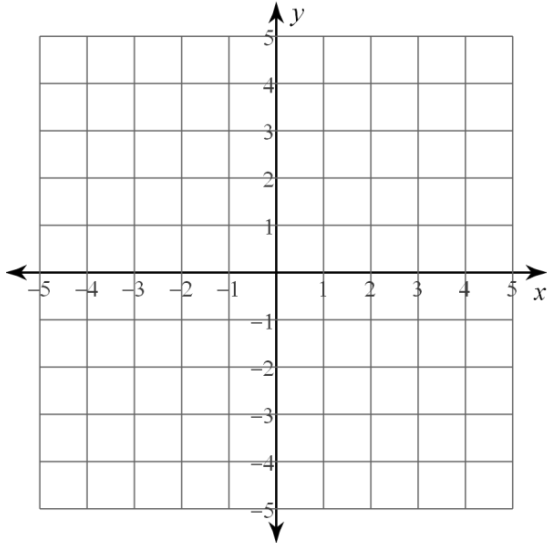
General Transformation equation:

_____

Transformed equation: $y = -2(x + 1)^2 + 4$

Verbal Description of transformation:

_____

Graph of the transformed equation:

Analysis of the Transformed Equation:

Domain:

Range:

Where Increasing:

Where Decreasing:

Where Positive:

Where Negative:

Vertex located at:

Absolute Min/Max Location:

y-intercept:

x-intercept:

Average Rate of change from x = -1 to x = 0

Average Rate of change from x = -1 to x = 1