

Forms of Quadratic Equations

Name _____

Open the Quadratic Equations File and turn to page 1.2



1.2

Use the trace feature (menu) 5 1 and move along the graph to find the coordinates of the vertex and the x-intercepts.

When you have the vertex, an m should appear on the screen. When you have an x-intercept, a z should appear on the screen.

Use trace to find the coordinates of the vertex and the x-intercepts.

Vertex _____ x-intercepts _____

1.3

Draw a perpendicular line through any point on the grid and perpendicular to the x-axis.

(menu) 9 (construction) 1 (perpendicular)

Select a point on the grid “point on” and then select the x-axis. Grab the point (ctrl) (point on) and move the point until it is on the vertex of the parabola.

Draw in a line of symmetry. Give the equation of the axis of symmetry and give a possible equation of the function.

Equation of the axis of symmetry:

Possible equation of the function:

1.4

Double click on the equation and change one or more numbers to move the graph. Try to move the graph so the vertex falls on each of the different points shown.

What equations resulted in the desired moves?

$f(x) = -(x+4)^2 + 4$

Change the equation until the vertex passes through each of the points shown.

1.5

Mark the answer to the true/false question.

$-x^2 - 4x$
 $-(x)(x+4)$
 $-(x+2)^2$

The above are all equations of the same graph.

True
 False

