**Foundations of Mathematics 11**

Chapter 7 Review Assignment

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Day \_\_\_\_\_

Pencil only. Show all work for credit. To be handed in by the end of class.

1. For , find the following:

 Show your work here!

 open up / down \_\_\_\_\_\_\_\_\_

 x-intercepts \_\_\_\_\_\_\_\_\_

 y-intercept \_\_\_\_\_\_\_\_\_

 axis of symmetry \_\_\_\_\_\_\_\_\_

 coordinates of vertex \_\_\_\_\_\_\_\_\_

 domain \_\_\_\_\_\_\_\_\_

 range \_\_\_\_\_\_\_\_\_

1. For , find the following:

 Show your work here!

 open up / down \_\_\_\_\_\_\_\_\_

 x-intercepts \_\_\_\_\_\_\_\_\_

 y-intercept \_\_\_\_\_\_\_\_\_

 axis of symmetry \_\_\_\_\_\_\_\_\_

 coordinates of vertex \_\_\_\_\_\_\_\_\_

 domain \_\_\_\_\_\_\_\_\_

 range \_\_\_\_\_\_\_\_\_

1. For , find the following:

 Show your work here!

 open up / down \_\_\_\_\_\_\_\_\_

 y-intercept \_\_\_\_\_\_\_\_\_

 axis of symmetry \_\_\_\_\_\_\_\_\_

 coordinates of vertex \_\_\_\_\_\_\_\_\_

 domain \_\_\_\_\_\_\_\_\_

 range \_\_\_\_\_\_\_\_\_

1. Find five points on the function and sketch.

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| --- | --- |
| 1. Solve  by factoring.
 | 1. Solve  using the quadratic equation.
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1. Determine the quadratic function that defines the parabola that has a vertex at and passes through.
2. Workers who were improving a section of highway used dynamite to remove a rock obstruction. When the rock shattered, the height of one piece of rock, , in feet, could be modelled by the function, , where t represents the time, in seconds, after the blast.

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| b) How long was the piece of rock in the air?c) What was the maximum height of the rock? | a) Graph the function with your calculator. |