**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. |

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. |