**Practice 4-1: Complete your assignment on a separate sheet of GRAPH paper. Show all work.**

1. Graph each function, describe the transformation, identify the vertex, axis of symmetry and maximum or minimum value.
2. b. c.
3. When does the graph of a quadratic function have a minimum value?
4. Describe the similarities and differences between the graphs of and

**Practice 4-2: Complete your assignment on a separate sheet of GRAPH paper. Show all work.**

1. Identify the vertex, axis of symmetry and maximum or

minimum value for the parabola.



1. Graph
2. Graph, state the vertex, axis of symmetry, maximum or minimum and range.
3. **b.**  **c.**

**4-3 practice**

1. A model for a company’s revenue from selling a software package is , p is the price of the software. What price would maximize revenue? What is the maximum revenue?
2. Find an equation in standard form of the parabola passing through the points. (3, -1), (2, -5), (4, -5)

|  |  |  |
| --- | --- | --- |
|  | **Time (s)** | **Height (ft)** |
|  | 0 | 5.5 |
|  | 1 | 6.0 |
|  | 2 | 5.5 |
|  | 3 | 4.0 |

1. A player hits a tennis ball across the court and records the height of the ball at different times, as shown in the table below.
2. Find a quadratic model for the data.
3. Use the model to estimate the height of the ball at 4 seconds.
4. What is the ball’s maximum height?

**Practice 4-4 Part 1: Complete your assignment on a separate sheet of GRAPH paper. Show all work.**

**1.**  Find the GCF

a. b.

**2.** Factor

a. b. c. 0

1. e. f.
2. Factor
3. b.

**Practice 4-4 Part 2: Complete your assignment on a separate sheet of paper. Show all work.**

**1.**  Factor

a. b. c.

d. e. f.