NC Math 1B Unit 4 Part I Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Homework Lesson 1: Key Features of a Parabola**

**I. Identify the key features below each graph.**



1. 2.

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_

Y- Intercept: \_\_

Zeros: \_\_

X- Intercepts: \_\_

Maximum or Minimum (Circle)

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_

Y- Intercept: \_\_

Zeros: \_\_

X- Intercepts: \_\_

Maximum or Minimum (Circle)

**II. Solve by the indicated method**

3. Factoring: $6x^{2}+5=-17x$ 4. Square Root: $2x^{2}-3=15$

5. Square Root: $(2x-1)^{2}=25$ 6. Factoring: $8x^{2}+48x=0$

**III. Review**

7. $(x-1)(2x+7)$ 8. $(2x^{5}y^{2})^{3}$ 9. $\left(x^{2}+3x-5\right)-(3x^{2}+7-2)$ 10. $\frac{12x^{2}y^{5}}{3x^{-3}y^{8}}$