**Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Linear Programming Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_**

**1.) Find the values of x and y that provide the maximum and minimum of the objective function**

** given the following constraints **

**Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2.) Find the values of x and y that provide the maximum and minimum of the objective function  given the following constraints **

**Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3.) Find the values of x and y that provide the maximum and minimum of the objective function given the following constraints **

**Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.) A nutrition center sells health food to mountain climbing teams. The Trailblazer mix package contains one pound of corn cereal mixed with four pounds of wheat cereal and sells for $9.75. The Frontier mix package contains two pounds of corn cereal mixed with three pounds of wheat cereal and sells for $9.50. The center has 60 pounds of corn cereal and 120 pounds of wheat cereal available. How many packages of each mix should the center sell to maximize its income?**

**X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Y = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Constraints:**

**Objective Function:**