**Solving Exponential Equations**

An ***exponential equation*** is one in which the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is contained within an exponent or exponents.

As with all types of equations, algebra can be used to determine an exact solution for an exponential equation. When the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ on either side of the equation have the same base, the exponents can be set equal and the resulting equation solved.

In other words:

**Ex1.** Solve each of the following:

|  |  |
| --- | --- |
| **a)** | **b)** |
| **c)** | **d)** |
| **e)** | **f)** |

**Ex2.** Solve each of the following:

|  |  |
| --- | --- |
| **a)** | **b)** |
| **c)** | **d)** |
| **e)** | **f)** |
| **g)** |  |