## Solving Exponential Equations - No Logs Required

Example One

$$3(2)^x - 5 = 43$$

Example Two

$$2(3)^{2x+5} = \frac{2}{9}$$

## Intro to Logs

Definition of a log

$$\log_b x = y$$

Using the Definition of a Log to Discover Basic Properties

1. 
$$\log_b b =$$

2. 
$$\log_b 1 =$$

## Some Basic Log Properties

Power Property

**Product Property** 

**Quotient Property**