



# Exponential Equations

Version 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

Direction: Solve each exponential equation. Show all your work in the space provided.

1)  $\frac{1}{125^{x+1}} = \frac{\sqrt{5}}{25}$

2)  $2\left(\frac{1}{2^x}\right)(32^{-x}) = \frac{1}{16^{-x}}$

3)  $\frac{2^{x-1}}{4} = 1$

4)  $\frac{7^{x-3}}{49^{x-3}} = 7$



Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

Direction: Solve each exponential equation. Show all your work in the space provided.

1) 
$$\frac{1}{125^{x+1}} = \frac{\sqrt{5}}{25}$$

$$x = -\frac{1}{2}$$

2) 
$$2\left(\frac{1}{2^x}\right)(32^{-x}) = \frac{1}{16^{-x}}$$

$$x = \frac{1}{10}$$

3) 
$$\frac{2^{x-1}}{4} = 1$$

$$x = 3$$

4) 
$$\frac{7^{x-3}}{49^{x-3}} = 7$$

$$x = 2$$