

Name _____ Date _____ Period _____

Solving for Exponents

Solve for x by finding the base and power each solution is raised to.

1) $3^{x+1} = 27$

2) $4^{2x-1} = 64$

3) $9^{-3x+9} = 729$

4) $8^{6x} = 512$

6) $5^{-2(x-2)} = 25$

6) $2^{3x-4} = 32$

7) $6^{\frac{x+1}{2}} = 1296$

8) $7^{3x-1} = 16807$

9) $4^{\frac{x}{2}-4} = 256$