Lesson 8.4 Practice: Solving Exponential Equations

School Launch · Algebra II · Unit 8: Logarithmic Functions · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Solve: $2^{x} = \frac{1}{4}$. EASY

2. Solve: $5^{x} = 5$. EASY

3. Solve: $3^{x} = 1$. EASY

4. Solve: $2^{3x+0} = \frac{1}{8}$. MEDIUM

5. Solve: $3^{2x+2} = \frac{1}{9}$. MEDIUM

6. Solve: $2^{2x-3} = \frac{1}{2}$. MEDIUM

7. Solve: $3^{3x-3} = \frac{1}{27}$. MEDIUM

8. Solve to the nearest hundredth: $3^{x} = 82$. HARD

9. Solve to the nearest hundredth: $2^{x} = 79$. HARD

10. Solve to the nearest hundredth: $5^{x} = 63$. HARD