Lesson 8.5 Practice: Solving Logarithmic 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: $\log_3(x+3) = 2$. EASY

2. Solve: $\log_5(x+8) = 3$. EASY

3. Solve: $\log_{10}(x+2) = 3$. EASY

4. Solve: $\log_2(x+3) = 1$. MEDIUM

5. Solve: $\log_3(x+9) = 1$. MEDIUM

6. Solve: $\log_3(x+1) = 1$. MEDIUM

7. Solve: $\log_2(x+1) = 3$. MEDIUM

8. Solve and check: $\log_3 x + \log_3(x+2) = 3$. HARD

9. Solve and check: $\log_5 x + \log_5(x+3) = 2$. HARD

10. Solve and check: $\log_5 x + \log_5(x+4) = 1$. HARD