Lesson 8.2 Practice: Graphs of Logarithmic Functions

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. For $f(x) = \log_{3}(x - 4) + 4$ give the domain, vertical asymptote and the point where $f(x) = 4$. EASY

2. For $f(x) = \log_{3}(x - 5) + 1$ give the domain, vertical asymptote and the point where $f(x) = 1$. EASY

3. For $f(x) = \log_{3}(x - 1) - 3$ give the domain, vertical asymptote and the point where $f(x) = -3$.

EASY

4. For $f(x) = \log_{3}(x + 3) + 4$ give the domain, vertical asymptote and the point where $f(x) = 4$.

MEDIUM

5. For $f(x) = \log_{10}(x - 5) - 2$ give the domain, vertical asymptote and the point where $f(x) = -2$.

MEDIUM

6. For $f(x) = \log_{10}(x + 4) - 2$ give the domain, vertical asymptote and the point where $f(x) = -2$.

MEDIUM

7. For $f(x) = \log_{2}(x + 0) - 1$ give the domain, vertical asymptote and the point where $f(x) = -1$.

MEDIUM

8. For $f(x) = \log_{10}(x + 0) + 2$ give the domain, vertical asymptote and the point where $f(x) = 2$. HARD

9. For $f(x) = \log_{3}(x - 2) - 3$ give the domain, vertical asymptote and the point where $f(x) = -3$.

HARD

10. For $f(x) = \log_{10}(x + 1) + 3$ give the domain, vertical asymptote and the point where $f(x) = 3$. HARD