Lesson 7.1 Practice: Exponential Functions and Their Graphs

School Launch · Algebra II · Unit 7: Exponential 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 $f(x) = 5(2)^{x} + 5$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. EASY

2. For $f(x) = 1(3)^{x} - 3$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. EASY

3. For $f(x) = 5(3)^{x} - 1$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. EASY

4. For $f(x) = 5(\frac{1}{2})^{x} - 2$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. MEDIUM

5. For $f(x) = 2(2)^{x} - 4$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. MEDIUM

6. For $f(x) = 5(2)^{x} - 2$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. MEDIUM

7. For $f(x) = 4(3)^{x} - 1$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. MEDIUM

8. For $f(x) = 5(\frac{1}{2})^{x} - 1$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. HARD

9. For $f(x) = 5(3)^{x} - 4$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. HARD

10. For $f(x) = 1(3)^{x} - 1$: give the y-intercept, the horizontal asymptote and whether it shows growth or decay. HARD