

MA 114 - Reading Assignment 20 - Section 4.3 - Spring 2008

Hello, my name is _____

1. Fill in the blanks:

$$\begin{aligned} a^s \cdot a^t &= \underline{\hspace{2cm}} \\ (a^s)^t &= \underline{\hspace{2cm}} \\ (ab)^s &= \underline{\hspace{2cm}} \\ 1^s &= \underline{\hspace{2cm}} \\ a^{-s} &= \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\ a^0 &= \underline{\hspace{2cm}} \end{aligned}$$

2. **True** or **False**: The function $f(x) = (-2)^x$ is an exponential function.
3. **True** or **False**: The function $f(x) = 1^x$ is an exponential function.
4. What is the domain of every exponential function? _____
5. What is the range of every exponential function? _____
6. What is the y -intercept of every exponential function? _____
7. What is the horizontal asymptote of every exponential function? _____
8. An exponential function is increasing if _____ and decreasing if _____.
9. See Examples 6 and 7. Solve for x : $2^{3x} = 4$.