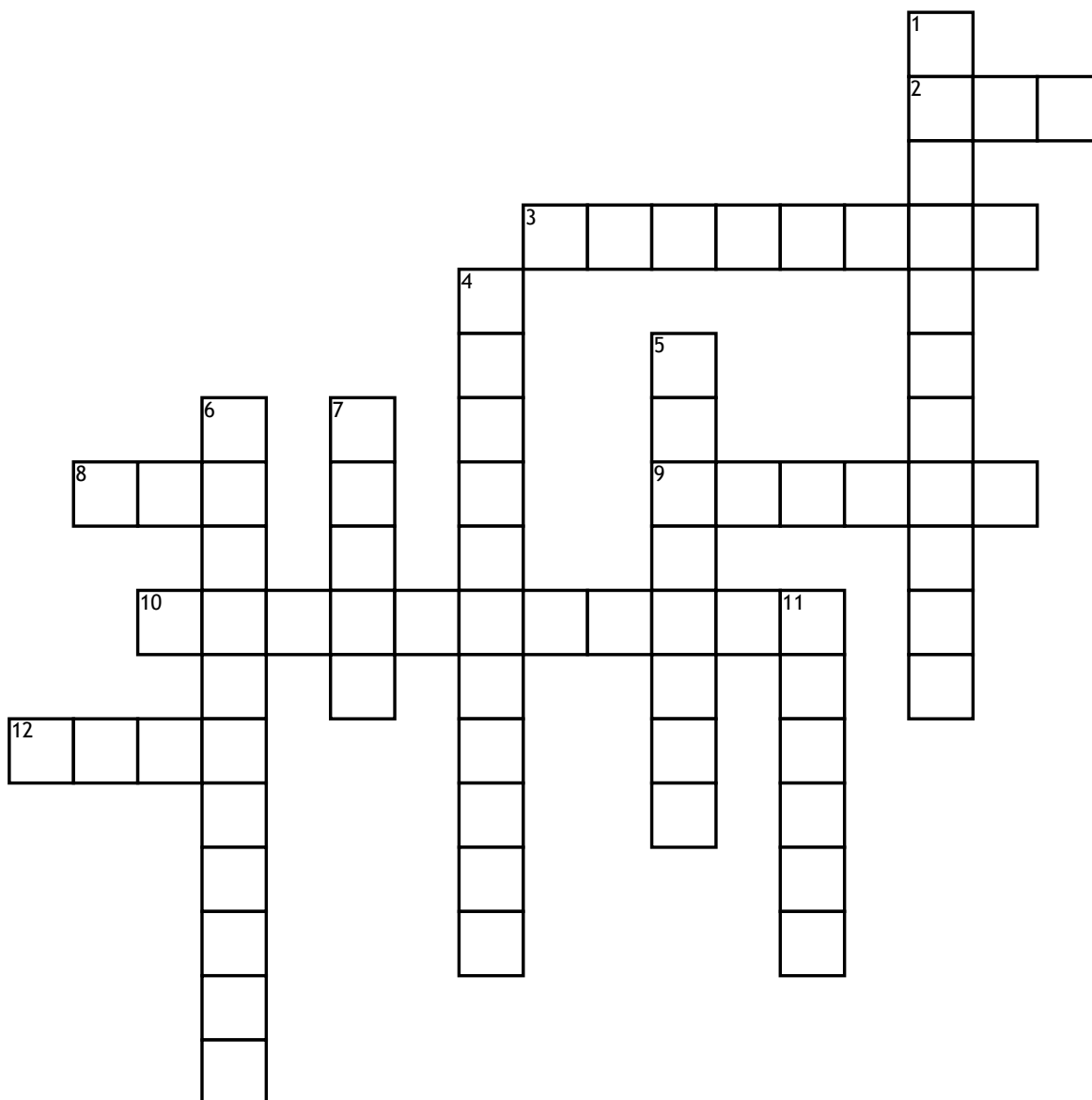


Name: _____ Date: _____

Logarithmic and Exponential Crossword Puzzle



Across

2. Let x , y , and b be real numbers such that $b > 0$ and $b \neq 1$. Then $b^x = b^y$ implies ____

3. An equation containing a variable within a logarithmic expression is called a logarithmic ____

8. The graphs of a logarithmic function base b and an exponential function base b are symmetric with respect to the line ____

9. If $b > 1$, f is an increasing exponential function, sometimes called an exponential ____ function

10. If x and b are positive real numbers such that $b \neq 1$, then $y = \log_b x$ is called the ____ function

12. In the expression $y = \log_b x$, y is called the logarithm, b is called the ____

Down

1. A logarithmic function base b is the inverse of the ____ function base b

4. An equation such as $5^x = 147$ is called an ____ equation because the equation contains a variable in the exponent.

5. In the expression $y = \log_b x$, y is called the logarithm, x is called the ____

6. Let b be any real number such that $b > 0$ and $b \neq 1$. Then for any real number x , a function of the form $f(x) = bx$ is called an ____ function

7. If $0 < b < 1$, f is a decreasing exponential function, sometimes called an exponential ____ function

11. The logarithmic function base 10 is called the ____ logarithmic function and is denoted by $y = \log x$.