

SHOW ALL WORK AND ANSWERS ON SEPARATE PAPER.

Simplify and/or find the value of  $x$ .

1.  $\log_{15} 15$

2.  $\log_5 x = 3$

3.  $\log_x \frac{1}{16} = -2$

4.  $\log_{44} 44$

5.  $\log_{50} x = 1$

6.  $\frac{1}{2} = \log_{121} x$

7.  $\log_{10} 100,000$

8.  $-4 = \log_3 x$

9.  $\log_{64} x = \frac{1}{3}$

10.  $\log_9 1$

11.  $\log_8 x = -2$

12.  $-4 = \log_x \frac{1}{16}$

Make a table of values and graph each function below.

13.  $y = \log_3 x$

14.  $f(x) = \log_4(x - 1)$

15.  $g(x) = \log_5 x - 2$

