

# Change of Base Formula WS

Use a calculator to approximate each to the nearest thousandth. Show your work.

1)  $\log_7 14$

$$\frac{\log 14}{\log 7}$$

$$1.356$$

2)  $\log_6 42$

$$\frac{\log 42}{\log 6}$$

$$2.086$$

3)  $\log_6 61$

$$\frac{\log 61}{\log 6}$$

$$2.294$$

4)  $\ln 4.3$

$$1.459$$

5)  $\log_6 11$

$$\frac{\log 11}{\log 6}$$

$$1.338$$

6)  $\log_5 10$

$$\frac{\log 10}{\log 5}$$

$$1.431$$

7)  $\ln 1$

$$0$$

8)  $\log_6 6.5$

$$\frac{\log 6.5}{\log 6}$$

$$1.045$$

9)  $\log_4 2.5$

$$\frac{\log 2.5}{\log 4}$$

$$0.661$$

10)  $\log_2 60$

$$\frac{\log 60}{\log 2}$$

$$5.907$$

11)  $\log_7 62$

$$\frac{\log 62}{\log 7}$$

$$2.121$$

12)  $\log_6 6.8$

$$\frac{\log 6.8}{\log 6}$$

$$1.070$$

13)  $\log_6 4.6$

$$\frac{\log 4.6}{\log 6}$$

$$0.852$$

14)  $\log_6 67$

$$\frac{\log 67}{\log 6}$$

$$2.347$$

15)  $\log_3 57$

$$\frac{\log 57}{\log 3}$$

$$3.680$$

16)  $\log 13$

$$0$$

$$1.114$$

17)  $\log_6 8$

$$\frac{\log 8}{\log 6}$$

$$1.161$$

18)  $\log_6 38$

$$\frac{\log 38}{\log 6}$$

$$2.030$$

19)  $\log_3 32$

$$\frac{\log 32}{\log 3}$$

$$3.155$$

20)  $\log_3 1.2$

$$\frac{\log 1.2}{\log 3}$$

$$0.166$$