

Rewriting Logs in Terms of Others

Class: _____ Period: _____

Use the properties of logarithms and the values below to find the logarithm indicated. Do not use a calculator to evaluate the logs.

1) $\log 10 = 1.0$
 $\log 9 = 0.95$
 $\log 7 = 0.85$
 Find $\log \frac{7}{9}$

2) $\log 10 = 1.0$
 $\log 8 = 0.90$
 $\log 7 = 0.85$
 Find $\log \frac{7}{8}$

3) $\log 10 = 1.0$
 $\log 7 = 0.85$
 $\log 6 = 0.78$
 Find $\log 42$

4) $\log 8 = 0.90$
 $\log 10 = 1.0$
 $\log 7 = 0.85$
 Find $\log 56$

5) $\log 7 = 0.85$
 $\log 10 = 1.0$
 $\log 6 = 0.78$
 Find $\log \frac{7}{6}$

6) $\log 8 = 0.90$
 $\log 7 = 0.85$
 $\log 10 = 1.0$
 Find $\log \frac{7}{8}$

7) $\log_2 10 = 3.3$
 $\log_2 8 = 3.0$
 $\log_2 6 = 2.6$
 Find $\log_2 30$

8) $\log_2 10 = 3.3$
 $\log_2 7 = 2.8$
 $\log_2 6 = 2.6$
 Find $\log_2 \frac{10}{7}$

9) $\log_2 10 = 3.3$
 $\log_2 8 = 3.0$
 $\log_2 6 = 2.6$
 Find $\log_2 24$

10) $\log_2 8 = 3.0$
 $\log_2 10 = 3.3$
 $\log_2 6 = 2.6$
 Find $\log_2 48$

11) $\log_2 10 = 3.3$
 $\log_2 7 = 2.8$
 $\log_2 6 = 2.6$
 Find $\log_2 \frac{7}{6}$

12) $\log_2 8 = 3.0$
 $\log_2 7 = 2.8$
 $\log_2 10 = 3.3$
 Find $\log_2 140$