

Log laws — All three laws

Name: _____

Date: _____



Write each of these as one logarithm.

1 $3 \log_{10} 4 = \log_{10} \underline{\hspace{2cm}}$

2 $\log_5 66 - \log_5 6 = \log_5 \underline{\hspace{2cm}}$

3 $\log_{10} 56 - \log_{10} 8 = \log_{10} \underline{\hspace{2cm}}$

4 $\log_3 4 + \log_3 7 = \log_3 \underline{\hspace{2cm}}$

5 $\log_{10} 5 + \log_{10} 8 = \log_{10} \underline{\hspace{2cm}}$

6 $2 \log_3 7 = \log_3 \underline{\hspace{2cm}}$

7 $2 \log_2 9 = \log_2 \underline{\hspace{2cm}}$

8 $\log_2 2 + \log_2 6 = \log_2 \underline{\hspace{2cm}}$

9 $\log_5 14 - \log_5 7 = \log_5 \underline{\hspace{2cm}}$

10 $\log_{10} 108 - \log_{10} 12 = \log_{10} \underline{\hspace{2cm}}$



Log laws · All three laws — Answer key



1. $3 \log_{10} 4 = \log_{10} 64$

2. $\log_5 66 - \log_5 6 = \log_5 11$

3. $\log_{10} 56 - \log_{10} 8 = \log_{10} 7$

4. $\log_3 4 + \log_3 7 = \log_3 28$

5. $\log_{10} 5 + \log_{10} 8 = \log_{10} 40$

6. $2 \log_3 7 = \log_3 49$

7. $2 \log_2 9 = \log_2 81$

8. $\log_2 2 + \log_2 6 = \log_2 12$

9. $\log_5 14 - \log_5 7 = \log_5 2$

10. $\log_{10} 108 - \log_{10} 12 = \log_{10} 9$