

Express as a Single Logarithm - Guided Lesson Explanation**Explanation#1**

From the property of logarithms: $\log a - \log b = \log a/b$

Hence, $\log 3 + \log 2 = \log 3/2$

$= \log 1.5$ is a single logarithm form.

The value of $\log 3$ in log table = 0.4771213

The value of $\log 2$ in log table = 0.3010300

Hence, $\log 3 - \log 2 = 0.4771213 - 0.3010300$

$= 0.18$ which is same as $\log 1.5$.

Explanation#2

From the property of logarithms: $\log a - \log b = \log a/b$

Hence, $\log 4 - \log 4 = \log 4/4$

$= \log 1$ is a single logarithm form.

The value of $\log 4$ in log table = 0.602060

The value of $\log 4$ in log table = 0.602060

Hence, $\log 4 - \log 4 = 0.602060 - 0.602060$

$= 0$ which is same as $\log 1$.

Explanation#3

From the property of logarithms: $\log a + \log b = \log a*b$

Hence, $\log 7 + \log 3 = \log 7*3$

$= \log 21$ is a single logarithm form.

The value of $\log 7$ in log table = 0.8450980

The value of $\log 3$ in log table = 0.4771213

Hence, $\log 7 + \log 3 = 0.8450980 + 0.4771213$

$= 1.32$ which is same as $\log 21$.

