

$$40. \quad \ln(a + b) + \ln(a - b) - 2 \ln c = \ln[(a + b)(a - b)] - \ln(c^2) = \ln \frac{a^2 - b^2}{c^2}$$

$$42. \quad 2[\log_5 x + 2 \log_5 y - 3 \log_5 z] = 2 \log_5 \frac{xy^2}{z^3} = \log_5 \left( \frac{xy^2}{z^3} \right)^2 = \log_5 \frac{x^2 y^4}{z^6}$$

$$44. \quad \log_a b + c \log_a d - r \log_a s = \log_a (bd^c) - \log_a s^r = \log_a \frac{bd^c}{s^r}$$

$$46. \quad \log_5 2 = \frac{\log 2}{\log 5} \approx 0.430677$$

$$48. \quad \log_6 92 = \frac{\log 92}{\log 6} \approx 2.523658$$

$$50. \quad \log_6 532 = \frac{\log 532}{\log 6} \approx 3.503061$$

$$52. \quad \log_{12} 2.5 = \frac{\log 2.5}{\log 12} \approx 0.368743$$