Introduction to Logarithms
Homework

Write each of the following exponentials in logarithmic form.

159. $9^2 = 81$ 160. $2^5 = 32$ 161. $81 = 3^4$

Write each of the following logarithms in exponential form.

162. $log_8 64 = 2$ 163. $log_4 256 = 4$ 164. $log_3 81 = 4$

Solve the following equations.

165. $log_4 1024 = x$ 166. $log_2 128 = x$ 167. $log_5 y = 4$

168. $log_7 y = 4$ 169. $log_b 1000 = 3$ 170. $log_b 1024 = 10$

Properties of Logs
Home Work

Using Properties of Logs, fully expand each expression.

185. $\log_4 x^5 y^2$ 186. $\log_3 3xy^2 z^5$ 187. $\log_4 \frac{4w}{x^2}$

188. $\log_5 \frac{1}{c^2 d^5}$ 189. $\log_8 \frac{8m^4}{(u^2 v)^3}$

Using Properties of Logs, rewrite each expression as a single log.

190. $2\log x + 3\log y + 4\log z$ 191. $3\log c - 5\log d$ 192. $1 - 2\log_4 m$

193. $5\log f - 2\log g - 6\log h$ 194. $3\log k - 5\log r + 5\log t$