

Unit 5 Page 7 Right Side

(1) $\log_4 64 = 3$ (2) $\log_7 \left(\frac{1}{49}\right) = -2$ (3) $\log_{16} 8 = \frac{3}{4}$ (4) $\ln 20.086 = 3$
 $4^3 = 64$ $7^{-2} = \frac{1}{49}$ $16^{\frac{3}{4}} = 8$ $e^3 = 20.086$

(5) $\log_3 81 = 4$ (6) $\log_{32} 2 = \frac{1}{5}$ (7) $\ln 1 = 0$ (8) $\log 10 = 1$
 $3^4 = 81$ $32^{\frac{1}{5}} = 2$ $e^0 = 1$ $10^1 = 10$

(9) $\log \frac{1}{1000} = -3$ (10) $5^3 = 125$ (11) $8^2 = 64$ (12) $e^7 = 1096.633$
 $10^{-3} = \frac{1}{1000}$ $\log_5 125 = 3$ $\log_8 64 = 2$ $\ln 1096.633 = 7$

(13) $81^{\frac{1}{4}} = 3$ (14) $u^v = w$ (15) $e^x = 4$ (16) $\log_6 36$ (17) $\log_2 16$
 $\log_{81} 3 = \frac{1}{4}$ $\log_u w = v$ $\ln 4 = x$ $6^x = 36$ $2^x = 16$
 $x = 2$ $x = 4$

(18) $\log \frac{1}{100}$ (19) $\log_3 3$ (20) $\log_8 2$ (21) $\log_5 1$ (22) $\ln e^2$
 $10^x = \frac{1}{100}$ $3^x = 3$ $8^x = 2$ $5^x = 1$ $2 \ln e$
 $x = -2$ $x = 1$ $x = \frac{1}{3}$ $x = 0$ 2

(23) $\log_9 81$ (24) $\log_3 3^2$ (25) $\log_{10} 345$ (26) $\log \frac{4}{5}$ (27) $\ln 32$
 $9^x = 81$ $2 \log_3 3$ $x = 2$ 2

(28) $\log 12.5$ (29) $\ln 18.42$ (30) $\log_{10} 145$