

Worksheet #23 —Ln and Log Calculator Problems

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Evaluate each of the following. Your answer should accurately agree with the given answer.

(1) $\sqrt{\exp(3.5)}$

(2) $e^{1.03} e^{-0.34}$

(3) $\ln 56.7$

(4) $\log 78.23$

(5) $\frac{1}{e^{5.6}}$

(6) $\ln(-5)$

(7) e^{-5}

(8) $e^{3.4} \ln 9.1$

(9) $e^{3.4} + \ln 9.1$

(10) $e^{3.4} - \ln 9.1$

(11) $\frac{e^{3.4}}{\ln 9.1}$

(12) $e^{3.4 \ln 9.1}$

(13) $3.4 + \ln 9.1$

(14) $e^{3.4} - 9.1 \ln 5.89$

(15) $e^{-1.56-2}$

(16) $\frac{1}{e^{-3.4}}$

(17) $e^{3.4 \ln 9.1}$

(18) $\frac{1}{e^{3.4} + \ln 9.1}$

(19) $\ln\left(\frac{1}{e^{3.4}}\right)$

(20) $\ln\left(\frac{1}{3.4}\right)$

(21) $\sqrt{e^{\sqrt{3.4}}}$

(22) $e^{\sqrt{3.4}}$

(23) $\sqrt{e^{-3.4} + \ln 9.1}$

(24) $\sqrt{e^{3.4}} - \sqrt{\ln 9.1}$

(25) $\sqrt{13 + e^{3.4}}$

(26) $-2.3 e^{-0.07(3.9)}$

(27) $\ln 3 + 4$

(28) $\ln \log 100$

(29) $\frac{1}{\ln 4} - \frac{1}{\ln 5}$

(30) $\sqrt{\ln e^9}$

(31) $\log \frac{1}{1000}$

(32) $e^{23.5} e^{-23.5}$

(33) $\frac{1}{(\ln 342)^2}$

(34) $e^{0.34} + 2.1$

(35) $\left(\frac{23.4 + \sqrt{19.4}}{3 - e^{34}}\right)^0$

(36) $\ln(7.09^{3.6})$

(37) $(1 + \ln 3) \left(-\ln 98 + \sqrt{4.9}\right)$

(38) $\ln e^{1.923}$

(39) $e^{\ln 23.11}$

(40) $\sqrt{12.5} - \ln 5.68$

(41) $\frac{\ln 12}{\ln 45}$

(42) $\ln^3(0.3^5)$

(43) $\log 1000$

(44) $\log 8000$

(45) $\log 8 + \log 1000$

(46) $\log 12 + \ln 12$

(47) $\ln e^{7.2} - e^{\ln 23.7}$

(48) $e^{0.39} - \ln 22.8$

(49) $\ln(\ln 23.9)$

(50) $10^{\log 23}$

(51) e^1

(52) $\ln(e^{-0.02} + 7.5)$

(53) $\log 10^{-0.045}$

(54) $\log \ln 34$

(55) $\ln \sqrt{89} - 5$

(56) $\frac{1}{(3 + e^{-0.9})^5}$

(57) $\log 8 - 78$

(58) $(\ln 4.5 - 5)^3$

(59) $\frac{1}{e^{-5}} - e^5$

(60) e^0

(61) $\log 1$

(62) $e^{-0.6} \ln 8 + \frac{1}{2.3}$

(63) $\frac{1}{e^{2.3}} - \frac{1}{e^{-2.3}}$

(64) $\log((8)(10^3))$

(65) $\log(8 + 10^3)$

(66) $223 \left(1 + \frac{0.03}{2}\right)^{2(9)}$

(67) $\frac{e^{-0.56}}{e^{0.56}}$

(68) $\ln \frac{23.4}{0.789}$

(69) $\frac{\ln 23.4}{\ln 0.789}$

(70) $\frac{e^{0.3} - 7.8}{e^{2.34} + 1}$

(71) $\frac{\ln 0.3 - 7.8}{e^{2.34} - 3}$

(72) $-0.34 \ln 23.08$

(73) $\ln 12 - \ln 2 - \ln 6$

(74) $\frac{1}{\ln 3} - \frac{1}{\ln 5}$

(75) $34.2 e^{-0.23} - \ln 99$

(76) $325 \left(1 + \frac{0.05}{12}\right)^{12(7)}$

(77) $\ln^{-2}(e^{-3} + 3)$

(78) $3^{\ln 4.5}$

(79) $26.01 - \frac{\ln 3.4}{e^{0.067}}$

(80) $\exp\left(\frac{1}{24.6}\right)$

(81) 7^e

(82) $(3 + \ln 9.2)(2 - e^{1.3})$

(83) $\frac{e^{-0.9}}{\ln 11} - \frac{\ln 234}{e^{3.4}}$

(84) $e^{3459.4}$

(85) $\log 0$

(86) $\sqrt{3.1 e^{-2}}$

(87) $2.3 e$

(88) $e^{4 - \ln 102.1}$

(89) $e^{2.7(1.5)^3}$

(90) $(e^3 + 1)(e^{-2} - 5)$

(91) $\ln^2 4.5$

(92) $\ln e^{-3.78}$

(93) $\log^3 34.9$

(94) $\ln^2 \log^3 92.6$

(95) $\ln \frac{1}{34.9} + \frac{3}{0.34}$

(96) $\exp\left(\frac{1}{45} - \frac{1}{5}\right)$

$$(97) \frac{\ln 5.67 - e^{-0.023}}{\ln 0.095 - \ln 7.56}$$

$$(98) \ln^2 6 + \ln^3 5$$

$$(99) (\ln 3.67 + 5.67)^2$$

$$(100) \log_3 7$$

$$(101) e^{-7.8} - \frac{1}{e^{7.8}}$$

$$(102) \exp\left(\frac{23.5}{8.9} - \frac{7.7}{3.46}\right)$$

$$(103) \sqrt{e^{0.2} + \sqrt{4.5}}$$

$$(104) e^{3(3.5^2)}$$

$$(105) \exp\left(2 + \frac{19^{\frac{1}{5}}}{0.17}\right)$$

$$(106) \log_5 11$$

$$(107) 7^{\log_7 11}$$

$$(108) e^{-0.034} - \frac{1}{0.034}$$

$$(109) \left(e^{11.7} + \frac{1}{\sqrt{3.7}}\right)^5$$

$$(110) \log \frac{23.5}{17.1}$$

$$(111) -4.4 \ln 7.8$$

$$(112) e^{e^{5^3}}$$

$$(113) 7^{\log 89} - 5^{2.3}$$

$$(114) \ln\left(\frac{1.2 - 5}{4.5 - 7.8}\right)$$

$$(115) -12.6 \exp\left(\frac{19.3 + 4.5}{7.4 - 5.12}\right)$$

$$(116) \frac{3.1 e^{-6.4} + 5.6}{19.3 - 7.7}$$

$$(117) \ln^{-3} 6.64$$

$$(118) \left(\frac{1}{4} + \sqrt{7.2}\right) \left(\frac{3}{7} - e^{1.1}\right)$$

$$(119) \exp^2\left(\frac{4 + \sqrt{2}}{3 - \sqrt{3}}\right)$$

$$(120) \ln(-0.2)$$

Answers: (1) 5.7546026760057 (2) 1.993715533243082 (3) 4.03777421073370 (4) 1.893373330246024
(5) 0.00369786371648293 (6) Undefined (7) 0.00673794699908546 (8) 66.1689554589042
(9) 32.1723744609198 (10) 27.75582563387420 (11) 13.56901110835950 (12) 1822.807193854449
(13) 5.60827441352280 (14) 13.82747046865920 (15) 0.02843882471418450 (16) 29.96410004739701
(17) 1822.807193854449 (18) 0.03108256747461125 (19) -3.4 (20) -1.223775431622115
(21) 2.51419945751287 (22) 6.32119891215802 (23) 1.497213305939781 (24) 3.987921007868957
(25) 6.55470060699930 (26) -1.750513411546548 (27) 5.0986122886681 (28) 0.693147180559945
(29) 0.1000125858848698 (30) 3. (31) -3. (32) 1. (33) 0.02937287472831040
(34) 3.50494759056359 (35) 1. (36) 7.0512672259585 (37) -4.97659276341470 (38) 1.923 (39) 23.11
(40) 1.79858267319967 (41) 0.652778295019774 (42) -218.152424602333 (43) 3. (44) 3.90308998699194
(45) 3.903089986991943 (46) 3.56408789583562 (47) -16.5 (48) -1.649779742077752
(49) 1.154954328660719 (50) 23. (51) 2.71828182845904 (52) 2.13773387798535 (53) -0.045
(54) 0.547326711209841 (55) 1.489297855897876 (56) 0.002179784848416615 (57) -77.0969100130080
(58) -42.7253301649114 (59) 0. (60) 1. (61) 0. (62) 1.576004323346847 (63) -9.87392361109191
(64) 3.90308998699194 (65) 3.003460532109506 (66) 291.536961790542 (67) 0.3262797946230394
(68) 3.389724980499918 (69) -13.30330344146629 (70) -0.566734656368109 (71) -1.219846123044931
(72) -1.067248590157565 (73) 0. (74) 0.2889042920672254 (75) 22.57792935547943 (76) 460.8617169734629
(77) 0.804256083069693 (78) 5.21948068444159 (79) 24.8655310888331 (80) 1.04148794448353
(81) 198.2506616557474 (82) -8.71239898355975 (83) -0.01250918682093557 (84) Overflow
(85) Undefined (86) 0.647718594787504 (87) 6.25204820545580 (88) 0.534751714330502
(89) 9067.9364187854 (90) -102.5740675042426 (91) 2.26224881549329 (92) -3.78
(93) 3.672403251917918 (94) 4.116578248523742 (95) 2.18066406215808 (96) 0.837128431360763
(97) -0.173171121749822 (98) 7.37931355985405 (99) 48.5835718059410 (100) 1.771243749161422
(101) 0. (102) 1.51439483783976 (103) 1.828311543944251 (104) $9.12687725686395 \times 10^{15}$
(105) 296529.133002226 (106) 1.489896102404978 (107) 11. (108) -28.44519320124484
(109) $2.548217853499818 \times 10^{25}$ (110) 0.1380717518795824 (111) -9.03814442826040 (112) Overflow
(113) 3.88795110311728 (114) 0.141078598259905 (115) -430323.833410213 (116) 0.4832026575471412
(117) 0.1473910456656342 (118) -7.55494416613124 (119) 47611.10747725952 (120) Undefined