EduSahara™ Assignment

Name : Logarithms

Chapter : Real Numbers

Grade : SSC Grade X

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1. $log_{2401} 16807 =$

   (i) 1.25 (ii) 2.25 (iii) 0.25 (iv) 9.25 (v) 3.25

2. $log_{343} 49 =$

   (i) 7.6667 (ii) 0.6667 (iii) 2.6667 (iv) 8.6667 (v) 1.6667

3. $log_{2401} 49 =$

   (i) 7.5 (ii) 1.5 (iii) 0.5 (iv) 8.5 (v) 2.5

4. $log_{81} 27 =$

   (i) 1.75 (ii) 7.75 (iii) 2.75 (iv) 8.75 (v) 0.75

5. $log_{36} 216 =$

   (i) 1.5 (ii) 3.5 (iii) 2.5 (iv) 0.5 (v) 9.5

6. $log_{512} 4096 =$

   (i) 9.3333 (ii) 3.3333 (iii) 1.3333 (iv) 0.3333 (v) 2.3333

7. $log_{4096} 512 =$

   (i) 0.75 (ii) 7.75 (iii) 8.75 (iv) 2.75 (v) 1.75

8. $log_{16} 64 =$

   (i) 9.5 (ii) 0.5 (iii) 2.5 (iv) 1.5 (v) 3.5

9. $log_{9} 27 =$

   (i) 2.5 (ii) 3.5 (iii) 9.5 (iv) 1.5 (v) 0.5

10. $log_{4} 8 =$

    (i) 2.5 (ii) 1.5 (iii) 0.5 (iv) 9.5 (v) 3.5

11. $log_{64} 512 =$

    (i) 9.5 (ii) 1.5 (iii) 2.5 (iv) 3.5 (v) 0.5

12. $log_{16} 256 =$

    (i) 1 (ii) 0 (iii) 3 (iv) 4 (v) 2

13. The base of $log_8 87$ is

(i) 7 (ii) 8 (iii) 87 (iv) 11 (v) 5

14. The base of $log_5 \frac{47}{65}$ is

(i) 8 (ii) 2 (iii) 4 (iv) 5 (v) $\frac{47}{65}$

15. The base of $log_{3.00} 77.0000$ is

(i) 3 (ii) 3^{-2} (iii) 77 (iv) 2 (v) 5

16. The base of $log_2 53^6$ is

(i) -1 (ii) 4 (iii) 53^6 (iv) 2 (v) 1

17. The base of $log_{\frac{5}{6}} 93$ is

(i) $\frac{5}{6}$ (ii) $\frac{7}{6}$ (iii) $\frac{5}{4}$ (iv) $\frac{1}{2}$ (v) 93

18. The base of $log_{\frac{1}{4}} \frac{25}{49}$ is

(i) $\frac{3}{4}$ (ii) $\frac{1}{4}$ (iii) $(\frac{-1}{4})$ (iv) $\frac{25}{49}$ (v) $\frac{1}{2}$

19. The base of $log_{\frac{1}{2}} 56^8$ is

(i) $\frac{3}{2}$ (ii) $(\frac{-1}{2})$ (iii) 1 (iv) $\frac{1}{2}$ (v) 56^8

20. $log\, 6 + log\, 6 =$

(i) $log\, 6^2$ (ii) $log\, 9^2$ (iii) $log\, 6$ (iv) $log\, 6^3$ (v) $log\, 4^2$

21. $log\, 30 + log\, 74 =$

(i) $log\, 2223$ (ii) $log\, 2220^2$ (iii) $log\, 2218$ (iv) $log\, 2219$ (v) $log\, 2220$

22. $log\, \frac{3}{8} + log\, \frac{1}{2} =$

(i) $log\, \frac{3}{16}$ (ii) $log\left(\frac{3}{16}\right)^2$ (iii) $log\, \frac{5}{16}$ (iv) $log\, \frac{1}{16}$ (v) $log\, \frac{3}{14}$

23. $log\,\frac{68}{81} + log\,\frac{19}{67} =$

(i) $log\left(\frac{1292}{5427}\right)^2$ (ii) $log\,\frac{1294}{5427}$ (iii) $log\,\frac{1292}{5427}$ (iv) $log\,\frac{1292}{5425}$ (v) $log\,\frac{430}{1809}$

24. $log\,8^7 + log\,8^2 =$

(i) $log\,5^9$ (ii) $log\,8^8$ (iii) $log\,8^9$ (iv) $log\,11^9$ (v) $log\,8^{10}$

25. $log\,83^7 + log\,83^2 =$

(i) $log\,83^9$ (ii) $log\,83^8$ (iii) $log\,83^{10}$ (iv) $log\,81^9$ (v) $log\,86^9$

26. $log\,7.0000 + log\,6.0000 =$

(i) $log\,42.0000$ (ii) $log\,43.0000$ (iii) $log\,40.0000$ (iv) $log\,41.0000$ (v) $log\,44.0000$

27. $log\,91.0000 + log\,50.0000 =$

(i) $log\,4552.0000$ (ii) $log\,4549.0000$ (iii) $log\,4551.0000$ (iv) $log\,4550.0000$ (v) $log\,4548.0000$

28. $log\,3 + log\,10 =$

(i) $log\,32$ (ii) $log\,30^2$ (iii) $log\,29$ (iv) $log\,28$ (v) $log\,30$

29. $log\,51 + log\,11 =$

(i) $log\,561^2$ (ii) $log\,559$ (iii) $log\,561$ (iv) $log\,560$ (v) $log\,564$

30. $log\,\frac{47}{65} + log\,\frac{72}{85} =$

(i) $log\,\frac{3386}{5525}$ (ii) $log\left(\frac{3384}{5525}\right)^2$ (iii) $log\,\frac{1128}{1841}$ (iv) $log\,\frac{3382}{5525}$ (v) $log\,\frac{3384}{5525}$

31. $log\,82^8 + log\,82^4 =$

(i) $log\,82^{12}$ (ii) $log\,79^{12}$ (iii) $log\,82^{13}$ (iv) $log\,84^{12}$ (v) $log\,82^{11}$

32. $log\,67.1300 + log\,93.9600 =$

(i) $log\,6305.5347$ (ii) $log\,6309.5347$ (iii) $log\,6306.5347$ (iv) $log\,6307.5347$ (v) $log\,6308.5347$

33. $log\,86 + log\,39 =$

(i) $log\,3353$ (ii) $log\,3356$ (iii) $log\,3352$ (iv) $log\,3354^2$ (v) $log\,3354$

34. $log\,\frac{29}{53} + log\,\frac{63}{76} =$

(i) $log\,\frac{1829}{4028}$ (ii) $log\,\frac{1827}{4028}$ (iii) $log\,\frac{1825}{4028}$ (iv) $log\,\frac{609}{1342}$ (v) $log\left(\frac{1827}{4028}\right)^{2}$

35. $log\,39^{5} + log\,39^{4} =$

(i) $log\,39^{9}$ (ii) $log\,39^{8}$ (iii) $log\,42^{9}$ (iv) $log\,36^{9}$ (v) $log\,39^{10}$

36. $log\,7.1700 + log\,85.1400 =$

(i) $log\,609.4538$ (ii) $log\,612.4538$ (iii) $log\,610.4538$ (iv) $log\,608.4538$ (v) $log\,611.4538$

37. $log\,34.0000 + log\,52.0000 =$

(i) $log\,1766.0000$ (ii) $log\,1767.0000$ (iii) $log\,1770.0000$ (iv) $log\,1768.0000$ (v) $log\,1769.0000$

38. $log\,0.8333 + log\,0.8333 =$

(i) $log\,0.8333$ (ii) $log\,1.8333$ (iii) $log\,8.8333$ (iv) $log\,2.8333$ (v) $log\,7.8333$

39. $log\,93^{9} + log\,93^{10} =$

(i) $log\,93^{18}$ (ii) $log\,96^{19}$ (iii) $log\,93^{19}$ (iv) $log\,93^{20}$ (v) $log\,91^{19}$

40. $log\,62.7300 + log\,45.6500 =$

(i) $log\,2863.6245$ (ii) $log\,2862.6245$ (iii) $log\,2864.6245$ (iv) $log\,2865.6245$ (v) $log\,2861.6245$

41. $log\,8 - log\,100 =$

(i) $log\,\frac{2}{25}$ (ii) $log\left(\frac{2}{25}\right)^{-1}$ (iii) $log\left(\frac{2}{25}\right)^{2}$ (iv) $log\,\frac{2}{23}$ (v) $log\,\frac{4}{25}$

42. $log\,\frac{1}{3} - log\,\frac{1}{11} =$

(i) $log\,3$ (ii) $log\,11$ (iii) $log\left(\frac{11}{3}\right)^{2}$ (iv) $log\,\frac{11}{3}$ (v) $log\,\frac{13}{3}$

43. $log\,3^{4} - log\,3^{5} =$

(i) $log\,3^{-4}$ (ii) $log\,3^{-1}$ (iii) $log\,3^{-2}$ (iv) $log\,6^{-1}$ (v) $log\,4^{-1}$

44. $log\,33.0000 - log\,16.0000 =$

(i) $log\,4.0625$ (ii) $log\,2.0625$ (iii) $log\,3.0625$ (iv) $log\,0.0625$ (v) $log\,1.0625$

45. $log\,36 - log\,18 =$

(i) $log\,4$ (ii) $log\,2^{2}$ (iii) $log\,1$ (iv) $log\,2^{-2}$ (v) $log\,2$

46. $log\,\frac{8}{13} - log\,\frac{14}{45} =$

(i) $log\,\frac{180}{91}$ (ii) $log\,\frac{178}{91}$ (iii) $log\,2$ (iv) $log\left(\frac{180}{91}\right)^{2}$ (v) $log\,\frac{180}{89}$

47. $log\,80^{4} - log\,80^{8} =$

(i) $log\,80^{-4}$ (ii) $log\,80^{-3}$ (iii) $log\,80^{-5}$ (iv) $log\,77^{-4}$ (v) $log\,82^{-4}$

48. $log\,98.1100 - log\,99.1800 =$

(i) $log\,0.9892$ (ii) $log\,8.9892$ (iii) $log\,7.9892$ (iv) $log\,1.9892$ (v) $log\,2.9892$

49. $log\,38 - log\,67 =$

(i) $log\,\frac{40}{67}$ (ii) $log\left(\frac{38}{67}\right)^{2}$ (iii) $log\,\frac{38}{65}$ (iv) $log\,\frac{36}{67}$ (v) $log\,\frac{38}{67}$

50. $log\,\frac{19}{41} - log\,\frac{15}{95} =$

(i) $log\,\frac{359}{123}$ (ii) $log\,\frac{361}{123}$ (iii) $log\left(\frac{361}{123}\right)^{2}$ (iv) $log\,\frac{361}{121}$ (v) $log\,\frac{121}{41}$

51. $log\,40^{5} - log\,40^{8} =$

(i) $log\,40^{-3}$ (ii) $log\,38^{-3}$ (iii) $log\,40^{-2}$ (iv) $log\,40^{-4}$ (v) $log\,42^{-3}$

52. $log\,15.2000 - log\,67.2400 =$

(i) $log\,7.2261$ (ii) $log\,8.2261$ (iii) $log\,1.2261$ (iv) $log\,2.2261$ (v) $log\,0.2261$

53. $log\,6.0000 - log\,38.0000 =$

(i) $log\,7.1579$ (ii) $log\,0.1579$ (iii) $log\,2.1579$ (iv) $log\,1.1579$ (v) $log\,8.1579$

54. $log\,0.6667 - log\,0.4824 =$

(i) $log\,3.3821$ (ii) $log\,9.3821$ (iii) $log\,2.3821$ (iv) $log\,0.3821$ (v) $log\,1.3821$

55. $log\,35^5 - log\,35^5 =$

(i) $log\,35^2$ (ii) $log\,1$ (iii) $log\,35^{-3}$ (iv) $log\,35$ (v) $log\,35^{-1}$

56. $log\,25.2600 - log\,53.4300 =$

(i) $log\,8.4728$ (ii) $log\,7.4728$ (iii) $log\,1.4728$ (iv) $log\,0.4728$ (v) $log\,2.4728$

57. The logarithmic notation of $2^3 = 8$ is

(i) $log_2 7 = 3$ (ii) $log_2 8^2 = 3$ (iii) $log_{2^{-1}} 5 = 3$ (iv) $log_2 10 = 3$ (v) $log_2 8 = 3$

58. The base exponent form of $log_6 36 = 2$ is

(i) $6 = 36$ (ii) $6^2 = 36$ (iii) $2^6 = 36$ (iv) $6^3 = 36$ (v) $8^2 = 36$

59. $log_3 12^5 =$

(i) $5\,log_3 14$ (ii) $4\,log_3 12$ (iii) $5\,log_3 12$ (iv) $6\,log_3 12$ (v) $log_1 10^5$

60. $log_{\frac{2}{5}} 97^9 =$

(i) $8\,log_{\frac{2}{5}} 97$ (ii) $9\,log_{\frac{2}{5}} 99$ (iii) $10\,log_{\frac{2}{5}} 97$ (iv) $9\,log_{\frac{2}{5}} 97$ (v) $log_{\left(\frac{2}{5}\right)^{-1}} 95^9$

61. $log_{8^4} 66^9 =$

(i) $8\,log_{8^4} 66$ (ii) $10\,log_{8^4} 66$ (iii) $9\,log_{8^4} 69$ (iv) $9\,log_{8^4} 66$ (v) $log_{5^4} 63^9$

62. $log_{\frac{309}{100}} 81^{10} =$

(i) $9\,log_{\frac{309}{100}} 81$ (ii) $log_{\frac{307}{100}} 78^{10}$ (iii) $11\,log_{\frac{309}{100}} 81$ (iv) $10\,log_{\frac{309}{100}} 83$ (v) $10\,log_{\frac{309}{100}} 81$

63. $log_{10} \frac{5}{2} =$

(i) $log\,4 - log\,2$ (ii) $log\,5 - log\,2$ (iii) $log\,5 - log\,4$ (iv) $2\,log\,5 - log\,2$ (v) $log\,5 - -2\,log\,2$

64. $log_{10} \frac{16}{63} =$

(i) $3\,log\,2 - 2\,log\,3 - log\,7$ (ii) $4\,log\,2 - 2\,log\,3 - log\,4$ (iii) $4\,log\,2 - 2\,log\,5 - log\,7$ (iv) $5\,log\,2 - 2\,log\,3 - log\,7$

(v) $4\,log\,2 - 2\,log\,3 - log\,7$

65. $log_{10} 90 =$

(i) $2\,log\,2 + 2\,log\,3 + log\,5$ (ii) $log\,2 + 2\,log\,3 + log\,5$ (iii) $log\,2 + log\,3 + log\,5$ (iv) $log\,4 + 2\,log\,3 + log\,5$

(v) $log\,-1 + 2\,log\,3 + log\,5$

66. $log_{10} 1458 =$

(i) $log\,2 + 7\,log\,3$ (ii) $log\,5 + 6\,log\,3$ (iii) $log\,1 + 6\,log\,3$ (iv) $log\,2 + 4\,log\,3$ (v) $log\,2 + 6\,log\,3$

67. $log\,2425 =$

(i) $97\,log\,25$ (ii) $log\,25 + log\,97$ (iii) $log\,25 \div log\,97$ (iv) $log\,25 - log\,97$ (v) $log\,25 \times log\,97$

68. $log\,\frac{40}{15} =$

(i) $log\,40 + log\,15$ (ii) $15\,log\,40$ (iii) $log\,40 \times log\,15$ (iv) $log\,40 - log\,15$ (v) $log\,40 \div log\,15$

69. $log_6 \frac{73}{77} =$

(i) $log\,\frac{73}{77} - log\,6$ (ii) $log\,6 \div log\,\frac{73}{77}$ (iii) $log\,\frac{73}{77} \div log\,6$ (iv) $log\,\frac{73}{77} + log\,6$ (v) $log\,\frac{73}{77} \times log\,6$

70. $log_{10} 67 =$

(i) $log\,67 + log\,10$ (ii) $log\,67 \div log\,10$ (iii) $log\,67 - log\,10$ (iv) $log\,10 \div log\,67$ (v) $log\,67 \times log\,10$

71. $log_{3.05} 29.5900 =$

(i) $log\,29.5900 - log\,3.05$ (ii) $log\,29.5900 + log\,3.05$ (iii) $log\,29.5900 \div log\,3.05$ (iv) $log\,3.05 \div log\,29.5900$

(v) $log\,29.5900 \times log\,3.05$

72. $log_{\frac{5}{9}} \frac{56}{83} =$

(i) $log\,\frac{56}{83} \div log\,\frac{5}{9}$ (ii) $log\,\frac{5}{9} \div log\,\frac{56}{83}$ (iii) $log\,\frac{56}{83} - log\,\frac{5}{9}$ (iv) $log\,\frac{56}{83} \times log\,\frac{5}{9}$ (v) $log\,\frac{56}{83} + log\,\frac{5}{9}$

73. $log_{7^2} 91^2 =$

(i) $2\,log\,91 \div 2\,log\,7$ (ii) $2\,log\,91 \times 2\,log\,7$ (iii) $2\,log\,91 - 2\,log\,7$ (iv) $2\,log\,7 \div 2\,log\,91$ (v) $2\,log\,91 + 2\,log\,7$

74. $log_{9^3} 4^5 =$

(i) $\frac{5}{3}\,log_9 7$ (ii) $\frac{10}{3}\,log_9 4$ (iii) $\frac{5}{3}\,log_9 3$ (iv) $\frac{5}{3}\,log_6 1$ (v) $\frac{5}{3}\,log_9 4$

75. $log_{10} 26 =$

(i) $log_{10} 77 + log_{26} 77$ (ii) $log_{26} 77 \div log_{10} 77$ (iii) $log_{10} 77 \div log_{26} 77$ (iv) $log_{10} 77 \times log_{26} 77$

(v) $log_{10} 77 - log_{26} 77$

76. $log_8 10 =$

(i) $log_2 10 \div log_8 2$ (ii) $log_2 10 + log_8 2$ (iii) $log_2 10 \times log_8 2$ (iv) $log_8 2 \div log_2 10$ (v) $log_2 10 - log_8 2$

77. $log_{21^6} 21^6 =$

(i) 9 (ii) 1 (iii) 0 (iv) 2 (v) 3

Assignment Key

1) (i)	2) (ii)	3) (iii)	4) (v)	5) (i)	6) (iii)
7) (i)	8) (iv)	9) (iv)	10) (ii)	11) (ii)	12) (v)
13) (ii)	14) (iv)	15) (i)	16) (iv)	17) (i)	18) (ii)
19) (iv)	20) (i)	21) (v)	22) (i)	23) (iii)	24) (iii)
25) (i)	26) (i)	27) (iv)	28) (v)	29) (iii)	30) (v)
31) (i)	32) (iv)	33) (v)	34) (ii)	35) (i)	36) (iii)
37) (iv)	38) (i)	39) (iii)	40) (i)	41) (i)	42) (iv)
43) (ii)	44) (ii)	45) (v)	46) (i)	47) (i)	48) (i)
49) (v)	50) (ii)	51) (i)	52) (v)	53) (ii)	54) (v)
55) (ii)	56) (iv)	57) (v)	58) (ii)	59) (iii)	60) (iv)
61) (iv)	62) (v)	63) (ii)	64) (v)	65) (ii)	66) (v)
67) (ii)	68) (iv)	69) (iii)	70) (ii)	71) (iii)	72) (i)
73) (i)	74) (v)	75) (iii)	76) (iii)	77) (ii)	

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