Algebra 2: Intro to Logarithms WKST

Rewrite the logarithm as an exponential.

1. $\log_3 81 = 4$

2. $\log_2 \frac{1}{8} = -3$

3. $\log_4 1 = 0$

Rewrite the exponential as a logarithm.

4. $4^3 = 64$

5. $81^{1/2} = 9$

6. $7^{-2} = \frac{1}{49}$

Evaluate, if possible.

7. $\log_4 16$

8. $\log_3 \frac{1}{27}$

9. $\log_{16} 2$

10. $\log_7 7$

11. $\log 1000$

12. $\log_6 216$

13. $\ln e$

14. $\log_9 1$

15. $\log \frac{1}{10}$

16. $\log_{1/2} 8$

17. $\ln e$

18. $\log_4 32$

19. $\log_{32} 2$

20. $\log(0.01)$

21. $\log_5(-5)$

22. $\ln 1$

23. $\log_{25} 125$

24. $\log_{81} 27$

Between what two consecutive integers does the log lie between?

25. $\log_3 100$

26. $\log_5 10$

27. $\log_2 \frac{1}{10}$

ANSWERS

1.	$3^4 = 81$	2.	$2^{-3} = \frac{1}{8}$	3.	$4^0 = 1$
4.	$\log_4 64 = 3$	5.	$\log_{81} 9 = \frac{1}{2}$	6.	$\log_7 \frac{1}{49} = -2$
7.	2	8.	-3	9.	$\frac{1}{4}$
10.	1	11.	3	12.	3
13.	1	14.	0	15.	-1
16.	-3	17.	1	18.	5/2
19.	1/5	20.	-2	21.	undefined
22.	0	23.	3/2	24.	3/4
25.	4 and 5	26.	1 and 2	27.	-4 and -3