

In Exercises 23–26, find the logistic function that satisfies the given conditions.

23. Initial value = 10, limit to growth = 40, passing through (1, 20).

25. Initial population = 16, maximum sustainable population = 128, passing through (5, 32).

Evaluate each expression.

1) $\log_7 \frac{1}{343}$

2) $\log_2 \frac{1}{8}$

3) $\log_4 16$

4) $\log_3 27$

5) $\log_7 49$

6) $\log_2 4$

7) $\log_7 \frac{1}{49}$

8) $\log_{64} \frac{1}{4}$