Vocabulary/Definitions
- \( \log_{10}(x) \) and \( \ln(x) \)
- \( \lim_{x \to 0} \log_{10}(x) \)
- \( \lim_{x \to \infty} \ln(x) \)
- Properties of logarithms (all five)

Understand
1. Find \( x \) such that \( 3^x + 7 = 12 \).

2. Suppose that the population of a city is given (in thousands) by \( P(t) = 150(1.02)^t \). Find \( P_0 \) and \( k \) if we rewrite this as \( P(t) = P_0 e^{kt} \).