DIRECTIONS: Solve the exponential equations. Round the results to three decimal places if necessary.

1. \( e^x = 18 \)
   \[ x \approx 2.890 \]

2. \( e^{2x} = 42 \)
   \[ x \approx 1.869 \]

3. \( 2^x + 7 = 10 \)
   \[ x \approx 1.585 \]

4. \( 2^{3x} = 4 \)
   \[ x = \frac{2}{3} \text{ or } x \approx 0.667 \]

5. \( 3^{2x} - 3 = 4 \)
   \[ x \approx 0.886 \]

6. \( e^{4x} - 3 = 7 \)
   \[ x \approx 0.576 \]

DIRECTIONS: Solve the logarithmic equations. Round the results to three decimal places if necessary.

7. \( \log x = -2 \)
   \[ x = \frac{1}{100} \text{ or } x = 0.010 \]

8. \( 7 \ln x = 21 \)
   \[ x \approx 20.086 \]

9. \( 7 + \log x = 4 \)
   \[ x = \frac{1}{1000} \text{ or } x = 0.001 \]

10. \( 4 - \ln x = 1 \)
    \[ x \approx 20.086 \]

11. \( 3 \log x + 1 = 13 \)
    \[ x = 10,000 \]

12. \( \log_3 3x = 2 \)
    \[ x = 3 \]