Solving Exponential Equations Practice Problems

Solve each equation. Round your answers to the nearest ten-thousandth.

1) $-7 \cdot 14^{10x} = -33$

2) $2 \cdot 3^{x-3} = 99$

3) $8 \cdot 10^{p-6} = 60$

4) $16^{a+1} + 5 = 54$

5) $20^{x+7} + 3 = 53$

6) $4^{-x} = \dfrac{1}{16}$

7) $5^{-p} = 1$

8) $\left(\dfrac{1}{36}\right)^{-3v} = \dfrac{1}{216}$

9) $4^{3a} = 4^{a-1}$

10) $8^{-3n} = 64$

Answers to Solving Exponential Equations Practice Problems

1) 0.0588

2) 6.5517

3) 6.8751

4) 0.4037

5) −5.6941

6) $\{2\}$

7) $\{0\}$

8) $\left\{-\dfrac{1}{2}\right\}$

9) $\left\{-\dfrac{1}{2}\right\}$

10) $\left\{-\dfrac{2}{3}\right\}$