

Solving Exponentials using Logs

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

1) $10^x = 14$

2) $17^n = 84$

3) $14^b = 71$

4) $4^r = 59$

5) $3 \cdot 2^{x-4} = 72$

6) $18^{n+1} + 7 = 22$

7) $8^{-7b} + 4 = 19$

8) $6^{v-2} + 8 = 67$

$$9) 3 \cdot 3^{3x+9} + 1 = 58$$

$$10) 2 \cdot 19^{8x-10} - 7 = 89$$

$$11) -10 \cdot e^{1-3r} + 3 = -20$$

$$12) 2 \cdot 7^{5k-6} - 2 = 15$$

$$13) -6 \cdot 4^{10p-4} + 10 = 10$$

$$14) -3 \cdot e^{6b-1} + 10 = 9$$

$$15) 2 \cdot e^{4x+4} - 8 = 69$$

$$16) -7 \cdot 8^{4m+2} - 6 = -46$$

Answers to Solving Exponentials using Logs

1) 1.1461

2) 1.5639

3) 1.6152

4) 2.9413

5) 8.585

6) -0.0631

7) -0.186

8) 4.2757

9) -2.1066

10) 1.4143

11) 0.0557

12) 1.42

13) No solution.

14) -0.0164

15) -0.0873

16) -0.2905