

Solving Exponential Equations Worksheet

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

1) $12^v = 59$

2) $3^x = 45$

3) $16^x + 2 = 95$

4) $2^x - 9 = 70$

5) $4 \cdot 9^p + 3 = 6$

6) $5 \cdot 14^k + 5 = 36$

7) $-7 \cdot 16^{x+5} = -82.5$

8) $-6.6 \cdot 3^{-3n} = -37$

9) $-18^{x-3} + 9 = -36$

10) $-7.3 \cdot 14^{3x} - 4 = -82$

11) $1.9 \cdot 15^{7-3p} = 13$

12) $18^{-8n-3} - 9 = 62$

13) $3 \cdot 17^{1-10p} - 1 = 19$

14) $-8 \cdot 4^{-5.9x-8} + 9 = -39$

Solving Exponential Equations Worksheet

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

1) $12^v = 59$

1.6409

2) $3^x = 45$

3.465

3) $16^x + 2 = 95$

1.6348

4) $2^x - 9 = 70$

6.3038

5) $4 \cdot 9^p + 3 = 6$

-0.1309

6) $5 \cdot 14^k + 5 = 36$

0.6914

7) $-7 \cdot 16^{x+5} = -82.5$

-4.1103

8) $-6.6 \cdot 3^{-3n} = -37$

-0.523

9) $-18^{x-3} + 9 = -36$

4.317

10) $-7.3 \cdot 14^{3x} - 4 = -82$

0.2992

11) $1.9 \cdot 15^{7-3p} = 13$

2.0966

12) $18^{-8n-3} - 9 = 62$

-0.5593

13) $3 \cdot 17^{1-10p} - 1 = 19$

0.033

14) $-8 \cdot 4^{-5.9x-8} + 9 = -39$

-1.575