

Name : _____

Score : _____

Teacher : _____

Date : _____

Exponential Equation Solving with Logarithms

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

1) $e^{z+9} - 4 = 15$

9) $8^{6h-1} - 4 = 23$

2) $9^{4s-4} - 1 = 16$

10) $11^{-3n-1} - 3 = 24$

3) $e^{x-1} - 4 = 17$

11) $3^w = 25$

4) $4 \cdot 7^{-2d} = 18$

12) $5^{-2q+6} - 9 = 26$

5) $8^{g-8} + 5 = 19$

13) $8^b = 27$

6) $5 \cdot 7^{-6w} = 20$

14) $e^{g-2} + 6 = 28$

7) $16^{p+10} + 2 = 21$

15) $5e^{-6m+8} - 8 = 29$

8) $10^g = 22$

16) $5 \cdot 8^{6p} = 30$



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Exponential Equation Solving with Logarithms

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

1) $e^{z+9} - 4 = 15$

-6.0556

2) $9^{4s-4} - 1 = 16$

1.3224

3) $e^{x-1} - 4 = 17$

4.0445

4) $4 \cdot 7^{-2d} = 18$

-0.3865

5) $8^{g-8} + 5 = 19$

9.2691

6) $5 \cdot 7^{-6w} = 20$

-0.1187

7) $16^{p+10} + 2 = 21$

-8.9380

8) $10^g = 22$

1.3424

9) $8^{6h-1} - 4 = 23$

0.4308

10) $11^{-3n-1} - 3 = 24$

-0.7915

11) $3^w = 25$

2.9299

12) $5^{-2q+6} - 9 = 26$

1.8955

13) $8^b = 27$

1.5850

14) $e^{g-2} + 6 = 28$

5.0910

15) $5e^{-6m+8} - 8 = 29$

0.9998

16) $5 \cdot 8^{6p} = 30$

0.1436

