

Name: _____

Date _____

Topic : Solve for the Unknown- Worksheet 1

1. $\text{Log}_7 245 + \log_7 a = 5.67$

2. $\text{Log}_8 b - \log_8 542 = 1.64$

3. $\text{Log}_5 e - \log_{(5)} 9 = -5$

4. $\text{Log}_7 x + \log_{(7)} 7 = -0.48$

5. $\text{Log}_3 [2/426] + \log_{(3)} [a] = 2.48$

6. $\log_{(4)} g - \log_4 6 = 2.88$

7. $\text{Log}_3 h + \log_3 68 = -0.79$

8. $\log_{(5)} [2/8] - \log_5 v = 4.5$

9. $\log_{(4)} 6 + \log_{(4)} a = 6.12$

10. $\log_{(3)} 125 - \log_{(3)} a = -15$



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Topic : Solve for the Unknown- Worksheet 1 **ANSWERS**

1. 252.66

2. 16408.424

3. 0.00288

4. 0.05614

5. 3248.1817

6. 325.15

7. 0.006174

8. 0.00017889

9. 806.224

10. 1793613375



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Topic : Solve for the Unknown- Worksheet 2

1. $\log_8 321 + \log_8 a = 7.48$

2. $\log_9 b - \log_9 426 = 3.15$

3. $\log_6 e - \log_{(6)} 8 = 4.58$

4. $\log_8 x + \log_{(8)} 64 = 8.125$

5. $\log_4 [3/537] + \log_{(4)} [a] = 2.50$

6. $\log_{(6)} g - \log_6 4 = 8.58$

7. $\log_4 h + \log_4 7 = 6.48$

8. $\log_{(6)} [3/9] - \log_6 v = 5.6$

9. $\log_{(5)} 7 + \log_{(5)} a = 7.23$

10. $\log_{(4)} 136 - \log_{(4)} a = 16$



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Topic : Solve for the Unknown- Worksheet 2 **ANSWERS**

1. 17725.89

2. 431790.92

3. 29310.46536

4. 339958.71

5. 3808

6. 18993181.5531

7. 1138.2842

8. 1.463×10^{-5}

9. 16160.5111

10. 3.1665×10^{-8}



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Topic : Solve for the Unknown- Worksheet 3

1. $\text{Log}_9 421 + \log_9 a = 8.51$

2. $\text{Log}_{10} b - \log_{10} 358 = 4.26$

3. $\text{Log}_7 e - \log_{(7)} 9 = 5.69$

4. $\text{Log}_9 x + \log_{(9)} 75 = 9.23$

5. $\text{Log}_5[4/647] + \log_{(5)}[a] = 3.60$

6. $\log_{(7)} g - \log_7 5 = 9.69$

7. $\text{Log}_5 h + \log_5 8 = 7.59$

8. $\log_{(7)}[4/10] - \log_7 v = 6.7$

9. $\log_{(6)} 8 + \log_{(6)} a = 8.34$

10. $\log_{(5)} 247 - \log_{(5)} a = 25$



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Topic : Solve for the Unknown- Worksheet 3 **ANSWERS**

1. 313560.7247

2. 6514529.1

3. 579229.08

4. 8562431.2753

5. 53105.11

6. 772627233.5357

7. 0.00202

8. 8.7077×10^{-7}

9. 386092.567

10. 8.288×10^{-16}



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Topic : Solve for the Unknown- Worksheet 4

1. $\log_7 x + \log_{(7)} 7 = -0.48$

2. $\log_{(4)} 6 + \log_{(4)} a = 6.12$

3. $\log_{(4)} g - \log_4 6 = 2.88$

4. $\log_{(3)} 125 - \log_{(3)} a = -15$

5. $\log_{(4)} 136 - \log_{(4)} a = 16$

6. $\log_{(6)} g - \log_6 4 = 8.58$

7. $\log_9 b - \log_9 426 = 3.15$

8. $\log_8 321 + \log_8 a = 7.48$

9. $\log_{(6)} 8 + \log_{(6)} a = 9.79$

10. $\log_{(5)} 74 - \log_{(5)} a = 4$



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Topic : Solve for the Unknown- Worksheet 4 **ANSWERS**

1. 0.056

2. 806.224

3. 325.15

4. 1793613375

5. 3.1665×10^{-8}

6. 18993181.5531

7. 431790.92

8. 17725.891

9. 5188128.86

10. 0.1184



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Topic : Solve for the Unknown- Worksheet 5

1. $\text{Log}_7 x + \log_{(7)} 9 = 1.58$

2. $\log_{(4)} 8 + \log_{(4)} a = 7.23$

3. $\log_{(4)} g - \log_4 7 = 3.97$

4. $\log_{(3)} 425 - \log_{(3)} a = 6$

5. $\log_{(5)} 247 - \log_{(5)} a = 27$

6. $\log_{(6)} g - \log_6 6 = 9.69$

7. $\text{Log}_9 b - \log_9 47 = 4.26$

8. $\text{Log}_8 321 + \log_8 a = 8.64$

9. $\log_{(6)} 9 + \log_{(6)} a = 2.84$

10. $\log_{(5)} 85 - \log_{(5)} a = 5$



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Topic : Solve for the Unknown- Worksheet 5 **ANSWERS**

1. 2.4

2. 2817.11

3. 1719

4. 0.583

5. 3.3152×10^{-17}

6. 208178975.34

7. 545972.726

8. 0.02787

9. 18.02

10. 0.0272

