

N: _____

D: _____ P: 0 1 2 3 4 5 6

Algebra 2 // Topic 6 // Solving Logs B

#1-6 Solve the following equations for x. Express your answer in log form.

1) $8^x = 12$

2) $4^x = 10$

3) $2^x = 7$

4) $3^x - 4 = 9$

5) $2(4^x) + 3 = 19$

6) $3(2^x) + 8 = 29$

#7-30 Solve the following equations for x.

7) $\log_4 x = 3$

8) $\log_x \frac{1}{9} = -2$

9) $\log_4 x = 2$

10) $\log_4 8 + \log_4 x = 3$

11) $\log_6 10 + \log_6 x = 2$

12) $\log 6 + \log x = 3$

13) $\log 8 + 3\log x = 3$

14) $2\log x - \log 4 = 0$

15) $\log 3x - \log 9 = 1$

16) $\log(x - 25) = 2$

17) $\log(2x + 5) = 3$

18) $\log(3x - 2) = 3$

$$19) \frac{1}{3}e^x = 5$$

$$20) e^{x+2} = 50$$

$$21) 4e^x = 10$$

$$22) \ln(3x + 4) = 5$$

$$23) 2\ln(3x - 1) = 6$$

$$24) 5\ln(3x - 2) = 20$$

$$25) \log x - \log 4 = -2$$

$$26) \log 6 - \log x = 2$$

$$27) 2\log(3x + 1) = 4$$

$$*28) \log x + \log(x + 3) = 1$$

$$*29) \log x + \log(x + 48) = 2$$