

Name _____

Date _____

1. $3^{2x-5} = 3^{x+3}$	2. $5 \cdot 3^x = 405$
3. $4^x - 8 = 56$	4. $5^{x-4} + 8 = 133$
5. $4(2)^{2x} + 2 = 34$	6. $2^{3x} = \frac{1}{8}$
7. $3^{2x} = \left(\frac{1}{9}\right)^3$	8. $\left(\frac{1}{125}\right)^{4x} = 5^3$
9. $4^{4x+3} = 16^{x-3}$	10. $3^{2x+3} = \left(\frac{1}{81}\right)^{x-1}$



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11. $\log_3(x) = 4$		12. $\log_5(x - 3) = 2$	
13. $\log_4(2x) = 3$		14. $2\log_2(x - 3) = 10$	
15. $\log_3(x + 2) = \log_3 12$		16. $\log_7(3x) = \log_7(x + 20)$	
17. $\log_3(x^2) = \log_3(2x + 3)$		18. $\log_2(x^2 + 2x) = \log_2 15$	
Rewrite in log form: 19. $4^{1.5} = 8$	20. $2^x = 243$	Rewrite in Exp. Form: 21. $\log_x(-16) = 3$	22. $\log_6(x + y) = 13$
Evaluate 23. $\log_2 8$	24. $\log_3 \frac{1}{27}$	25. $\log_{16} 4$	26. $\log_5 5^{2x}$

