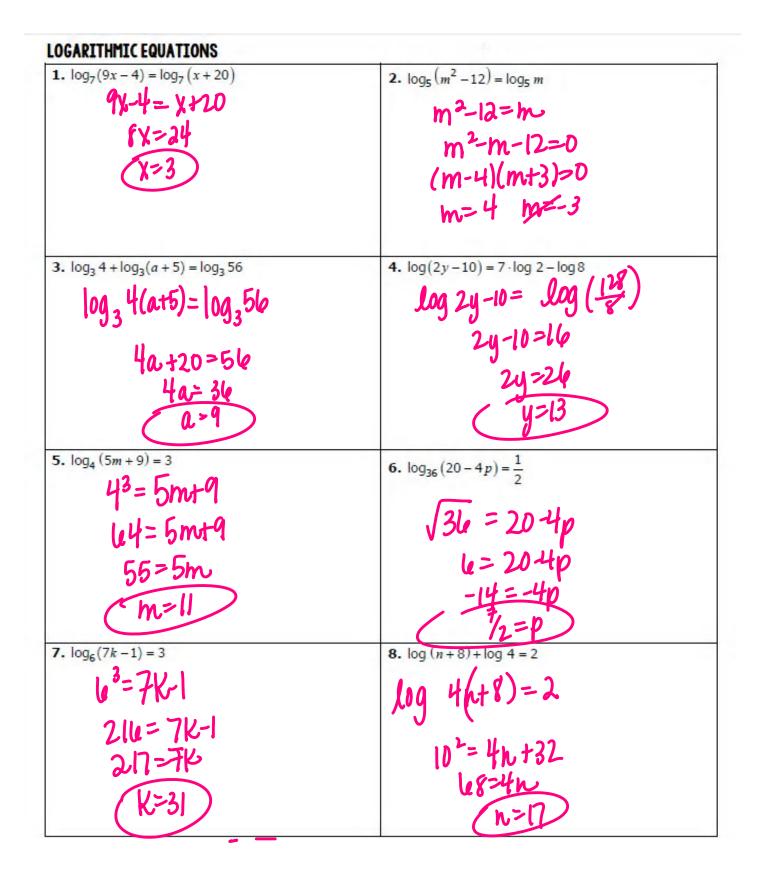
Name:

Solve each equation. Check for extraneous solutions when necessary.



EXPONENTIAL EQUATIONS

5.
$$3^{3^{n+1}} = 25^{2}$$

 $3^{5^{n+2}} = 25^{2}$
 $1^{3^{n+1}} = 25^{2}$
 $1^{3^{n+1}} = 2^{3(4x-2)}$
 $1^{-4} = 2^{3(4x-2)}$
 $-4 = 2^{3(4x-2)}$
 $2 = 12x$
 $x = 76$
 $10^{9} 78 = M$
 $12^{9^{n+6}} = 78$
 $10^{9} 78 = M - 6$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 10^{-1}$
 $1.9828 = 38X$
 $1.5989 = 3.8X$
 $1.9911 = -8X$
 $X \approx .751$
 $2.19^{10^{n+3}} = 74$
 $18^{1^{n+3}} = 37$
 $10^{9} 18^{-3} = 74$
 $18^{1^{n+3}} = 37$
 $10^{9} 18^{-3} = 37$
 $10^{9} 18^{-3} = 10^{n-3}$
 $1.2493 = 10^{n-3}$
 $1.2493 = 10^{n-3}$
 $1.2493 = 10^{n-3}$