Math 12 ***LOG EQUATIONS***

SOLVE FOR X IN EACH OF THE FOLLOWING EQUATIONS:

1) $\log x = 2$

(2) $\log_2 x = 3$

(3) $\log_2 x + \log_2 (x-1) = \log_2 2$

(4) $\log_4 x + \log_4 (x-1) = \log_4 12$

(5) $\log_2 (x-2) + \log_2 x = \log_2 3$

(6) $\log_4 (x-4) + \log_4 x = \log_4 5$

(7) $\log(x+2)+\log(x-1)=1$

(8) $2\log(x-1)=2+\log 100$

(9) 2logx=log32+log2

(10) $\log_4(x+2)+\log_4(x-1)=1$

(11) 2logx+3logx=10

(12) $\log_3 x^2-\log_3 2x=2$

(13) $\log_3 x\ +\log_3(x-2)=1$

(14) $\log_2(2x+4)-\log_2(x-1)=3$

ANSWERS:

(1) 100	(2) 8	(3) 2	(4) 4	(5) 3	(6) 5	(7) 3
(8) 101	(9) 8	(10) 2	(11) 100	(12) 18	(13) 3	(14) 2