Logarithmic Equations

Solve for x.

1) $\log_x 3 = \dfrac{1}{4}$

   ___**x = 81**___

2) $\log_2 x = 7$

   ___**x = 128**___

3) $\log_x 16 = 2$

   ___**x = 4**___

4) $\log_{64} x = \dfrac{1}{6}$

   ___**x = 2**___

5) $\log_4 \left(\dfrac{1}{64}\right) = x$

   ___**x = –3**___

6) $\log_x 25 = 2$

   ___**x = 5**___

7) $\log_3 x = 5$

   ___**x = 243**___

8) $\log_2 \left(\dfrac{1}{512}\right) = x$

   ___**x = –9**___

9) $\log_2 256 = x$

   ___**x = 8**___

10) $\log_{10} x = 2$

   ___**x = 100**___