Logarithm - Solve

Solve for x.

Example 1:
$$\log_3 \left(\frac{1}{3}\right) = x$$
$$3^x = \left(\frac{1}{3}\right)$$
$$3^x = 3^{-1}$$
$$x = \mathbf{-1}$$

Example 2:
$$\log_{25} 5^{-3} = x$$
$$25^x = 5^{-3}$$
$$5^{2x} = 5^{-3}$$
$$x = \mathbf{-\frac{3}{2}}$$

Solve for x.

1) $\log_{49} 7 = x$

x = _____

2) $\log_x 81^{\frac{1}{2}} = 2$

3) $\log_{81} \left(\frac{1}{3}\right) = x$

x = _____

5) $\log_{\frac{1}{32}} \left(\frac{1}{2}\right) = x$

x = _____

7) $\log_x 5 = \left(\frac{1}{2}\right)$

x = _____

x = _____

9) $\log_8 x = 3$

x = _____

10) $\log_x 2^{-4} = -1$

x = _____

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