Logarithmic Equations

Solve each logarithmic equation.

$\log_3 42 - \log_3 x = \log_3 7$

$x = $ _____

$\log_2 x - \log_2 15 = \log_2 9$

$x = $ _____

$\log_5 154 - \log_5 x = \log_5 14$

$x = $ _____

$\log_2 x - \log_2 10 = \log_2 1{,}000$

$x = $ _____

$\log_4 144 - \log_4 x = \log_4 36$

$x = $ _____