Problem statement Solve each of the following equations to find \( x \):

a) \( x^{1/3} - 5x^{1/6} + 6 = 0 \)  
   b) \( 3\log_x(4) = 2 \)

c) \( 2^x = 4^{2x-3} \)  
   d) \( \log_2(x) = \log_4(25) + \log_8(27) \)

e) \( \log_x(7x - 12) = 2 \)  
   f) \( \log_2(\log_3(\log_4(x))) = 1 \)