

**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)  $\log_2(\log_3(\log_4(x))) = 1$