3.8

1) $2^x = 100$

$x = \log_2(100) = \dfrac{\log(100)}{\log(2)} \approx 6{,}64$

$\mathrm{S} = \{6{,}64\}$

2) $10^x = 5$

$x = \log(5) \approx 0{,}7$

$\mathrm{S} = \{0{,}7\}$

3) $12^x = 149$

$x = \log_{12}(149) = \dfrac{\log(149)}{\log(12)} \approx 2{,}01$

$\mathrm{S} = \{2{,}01\}$

4) $10^{3\,x} = 14{,}87$

$3\,x = \log(14{,}87)$

$x = \frac{1}{3}\,\log(14{,}87) \approx 0{,}39$

$\mathrm{S} = \{0{,}39\}$

5) $10^x = 43{,}215$

$x = \log(43{,}215) \approx 1{,}64$

$\mathrm{S} = \{1{,}64\}$

6) $3^x = 5$

$x = \log_3(5) = \dfrac{\log(5)}{\log(3)} \approx 1{,}46$

$\mathrm{S} = \{1{,}46\}$

7) $145^x = 3451$

$x = \log_{145}(3451) = \dfrac{\log(3451)}{\log(145)} \approx 1{,}64$

8) $0{,}421^x = 73{,}55$

$x = \log_{0{,}421}(73{,}55) = \dfrac{\log(73{,}55)}{\log(0{,}421)} \approx -4{,}97$

$\mathrm{S} = \{-4{,}97\}$