

Working with natural logarithms



Gold

Solve, giving your answers to 2 decimal places.

a $\ln(x^2 + 3x - 9) = 0$

b $\ln(2x + 1) + \ln(x + 2) = \ln(2)$

Silver

Solve, giving your answers to 2 decimal places.

a $6^x = 200$

b $3^{2x} - 3^x - 12 = 0$

Bronze

a Write the following as a single logarithm: $\log_2 15 + \log_2 4$

b Solve, giving your answer to 2 decimal places: $\log_5 10 + \log_5 x = 4$