

Logarithms - Exercises (1 page; 7/10/18)

(1) Show that $\log(4 - \sqrt{15}) = -\log(4 + \sqrt{15})$

(2) If $k = \log_{24}12$, write the following in terms of k :

(a) $\log_{24}2$ (b) $\log_{24}6$

(3) Is $\log_2 3 > \frac{3}{2}$?

(4) Write $\log_2 3$ in terms of logs to the base 10

(5) Simplify $\frac{\log_x b}{\log_x a}$

(6) [Linear interpolation] By approximating the graph of

$y = \log_2 x$ by a straight line between $x = 2$ and $x = 4$, find an approximate value for $\log_2 \left(\frac{5}{2}\right)$