

MG4A1 - Self Assessment

Note: If you cannot answer correctly ALL of these questions you are strongly advised to attend the maths sessions.

I. Use the rules of logs to express each of the following as a single natural logarithm:

1. $4\ln x + 8\ln x + \ln(\ln(e^x))$

II. Solve the following linear inequalities:

1. $2(x - 1) < 5(3x + 2)$

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2. $\frac{2x-1}{5} \geq \frac{x-3}{2}$

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III. Slopes and Intercepts:

1. Find the slope-intercept formula of a line with a point $(3, -4)$ and a slope of 2.

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LSE Student ID number: _____

Answers:

I. $13\ln x$

II.1. $x > \frac{-12}{13}$; II.2. $x \leq 13$

III. $y = 2x - 10$