LINE (Q 3, PAPER 2)

LESSON NO. 3: ANGLE BETWEEN LINES

2006

3 (c) (i) Prove that the measure of one of the angles between two lines with slopes m_1 and m_2 is given by

$$\tan\theta = \frac{m_1 - m_2}{1 + m_1 m_2}.$$

2001

3 (c) N is the line $tx + (t-2)y + 4 = 0$ where $t \in \mathbf{R}$.

(i) Write down the slope of N in terms of t.

(ii) Given that the angle between N and the line $x - 3y + 1 = 0$ is 45°, find the two possible values of t.

ANSWERS

2001 3 (c) (i) $\frac{t}{2-t}$ (ii) $t = -2, \frac{4}{3}$