M4 = 39 days to go!

4

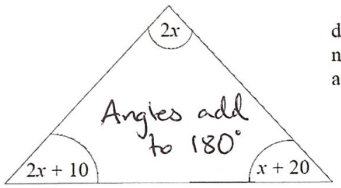

diagram not drawn accurately

Form and solve an equation to work out the size of the smallest angle in the triangle above.

Equation $2x + 2x+10 + x+20 = 180$ [1]

$5x + 30 = 180$

$5x = 150$

$x = 30$

Angles $50^\circ, 60^\circ, 70^\circ$

Answer smallest angle = 50 ° [3]

22 (a) Factorise $2a^2 + 7ab - 4b^2$

$(2a - b)(a + 4b)$

$(2a-b)(a+4b)$

Answer _____ [2]

(b) Simplify the following

$$\left(\frac{x+1}{2x-1} + \frac{3x-4}{x-4}\right) \times \frac{2x-1}{x}$$

BIDMAS

Inside the BRACKETS

$\frac{x+1}{2x-1} + \frac{3x-4}{x-4}$

$\left(\frac{7x(x-2)}{(2x-1)(x-4)}\right)\frac{2x-1}{x}$

$\frac{(x+1)(x-4)}{(2x-1)(x-4)} + \frac{(3x-4)(2x-1)}{(2x-1)(x-4)}$

$\frac{7(x-2)}{x-4}$

$\frac{(x+1)(x-4)+(3x-4)(2x-1)}{(2x-1)(x-4)}$

$\frac{x^2-3x-4+6x^2-11x+4}{(2x-1)(x-4)}$

$\frac{7x^2-14x}{(2x-1)(x-4)}$

$\frac{7x(x-2)}{(2x-1)(x-4)}$

Answer $\frac{7(x-2)}{(x-4)}$ [4]