1. Nov/2022/Paper_0606_11/No.4

DO NOT USE A CALCULATOR IN THIS QUESTION.

Solve the equation $(\sqrt{5}-1)x^2-2x-(\sqrt{5}+1)=0$, giving your answers in the form $a+b\sqrt{5}$, where a and b are constants. [6]

2. Nov/2022/Paper_0606_12/No.3

Write $\dfrac{\sqrt{(9p^2q)} \times r^{-3}}{(2p)^3 q^{-1} \sqrt[5]{r}}$ in the form $kp^a q^b r^c$, where k, a, b and c are constants. [4]

3. Nov/2022/Paper_0606_21/No.4

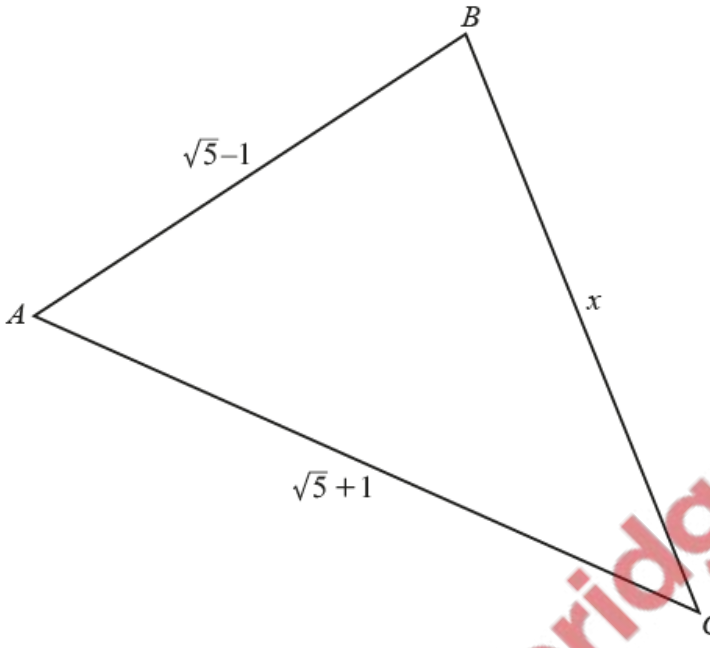
Solve the following equations, giving your answers to 3 significant figures.

(a) $2^{3x+1} = 5^{x-2}$ [3]

(b) $e^{2y+1} = 1 + \dfrac{6}{e^{2y+1}}$ [4]

4. Nov/2022/Paper_0606_22/No.9

In this question all lengths are in centimetres.



The diagram shows triangle ABC which has area $\frac{2\sqrt{5}}{3}$ cm^2. Angle A is acute.

(a) Find the exact value of $\sin A$. [3]

(b) Find the exact value of $\cos A$ and hence find the exact value of x. [5]