5 A solid cuboid has volume 772 cm^3
   The cuboid has width x cm, length $4x$ cm and height h cm.
   The total surface area of the cuboid is $A \text{ cm}^2$

   (a) Show that $A = 8x^2 + \dfrac{1930}{x}$

   (3)

   (b) Find, to 3 significant figures, the value of x for which A is a minimum, justifying that this value of x gives a minimum value of A.

   (5)

   (c) Find, to 3 significant figures, the minimum value of A.

   (2)

P 4 6 9 0 2 A 0 1 0 3 2

Question 5 continued

Question 5 continued

Question 5 continued

(Total for Question 5 is 10 marks)