9   The base of a cuboid has sides of length x cm and $3x$ cm. The volume of the cuboid is $288\,\text{cm}^3$.

   (i) Show that the total surface area of the cuboid, $A\,\text{cm}^2$, is given by

$$A = 6x^2 + \frac{768}{x}.$$ [3]

   (ii) Given that x can vary, find the stationary value of A and determine its nature. [5]