

- (i) Express h in terms of x and show that the total surface area of the prism, $A \text{ cm}^2$, is given by

$$A = \frac{\sqrt{3}}{2}x^2 + \frac{24\,000}{\sqrt{3}}x^{-1}. \quad [3]$$

(ii) Given that x can vary, find the value of x for which A has a stationary value.

[3]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(iii) Determine, showing all necessary working, the nature of this stationary value.

[2]

[illegible]