



The diagram shows the curve with equation  $x = y^2 + 1$ . The points  $A(5, 2)$  and  $B(2, -1)$  lie on the curve.

- (a) Find an equation of the line  $AB$ . [2]

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- (b)** Find the volume of revolution when the region between the curve and the line  $AB$  is rotated through  $360^\circ$  about the **y-axis**. [9]

This image shows a blank sheet of primary-ruled paper. It features ten horizontal rows, each defined by three dashed lines: a top line, a middle line, and a bottom line. The rows are evenly spaced and extend across the entire width of the page, providing a template for handwriting practice.

