



The diagram shows the points  $A(1\frac{1}{2}, 5\frac{1}{2})$  and  $B(7\frac{1}{2}, 3\frac{1}{2})$  lying on the curve with equation  $y = 9x - (2x + 1)^{\frac{3}{2}}$ .

- (a) Find the coordinates of the maximum point of the curve. [4]

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[3]

[illegible]

[5]

This image shows a full page of white paper with horizontal dashed lines, typical of primary-ruled notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.