

- A curve has equation  $y = ax^{\frac{1}{2}} - 2x$ , where  $x > 0$  and  $a$  is a constant. The curve has a stationary point at the point  $P$ , which has  $x$ -coordinate 9.

Find the  $y$ -coordinate of  $P$ .

[5]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.