

- 3 A particle P is projected with speed 25 ms^{-1} at an angle θ above the horizontal from a point O on a horizontal plane and moves freely under gravity. After 2 s the speed of P is 15 ms^{-1} .

(a) Find the value of $\sin \theta$.

[5]

This image shows a full page of a handwriting practice worksheet. It consists of multiple sets of three horizontal dotted lines, providing a guide for letter height and placement. The lines are evenly spaced across the entire page, leaving ample room for writing practice. There is no text or other markings on the page.

(b) Find the range of the flight.

[3]

[illegible]