Leave blank

6. A particle P is moving with constant acceleration.

At time $t = 1$ second, P has velocity $(-\mathbf{i} + 4\mathbf{j})\,\text{m s}^{-1}$

At time $t = 4$ seconds, P has velocity $(5\mathbf{i} - 8\mathbf{j})\,\text{m s}^{-1}$

Find the speed of P at time $t = 3.5$ seconds.

(6)

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Question 6 continued

Q6

(Total 6 marks)