

- 2 A stone is thrown vertically upwards. The variation with time t of the displacement s of the stone is shown in Fig. 2.1.

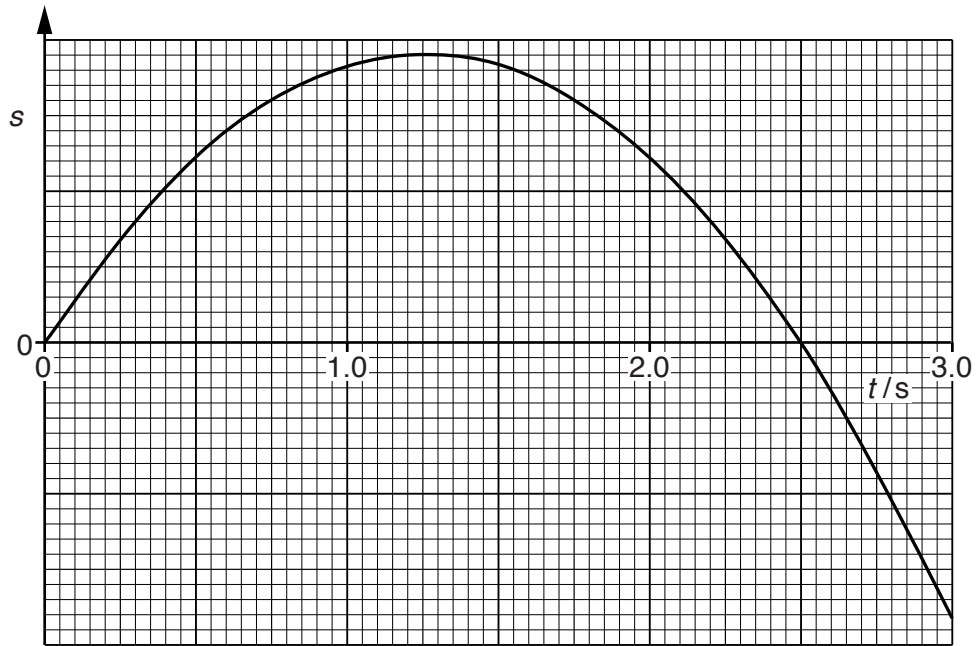


Fig. 2.1

- (a) Use Fig. 2.1 to describe, without calculation, the speed of the stone from $t = 0$ to $t = 3.0$ s.

.....

 [2]

- (b) Assume air resistance is negligible and therefore the stone has constant acceleration.

Calculate, for the stone,

- (i) the speed at 3.0 s,

speed = ms^{-1} [3]

(ii) the distance travelled from $t = 0$ to $t = 3.0$ s,

distance = m [3]

(iii) the displacement from $t = 0$ to $t = 3.0$ s.

displacement = m

direction [2]

(c) On Fig. 2.2, draw the variation with time t of the velocity v of the stone from $t = 0$ to $t = 3.0$ s.

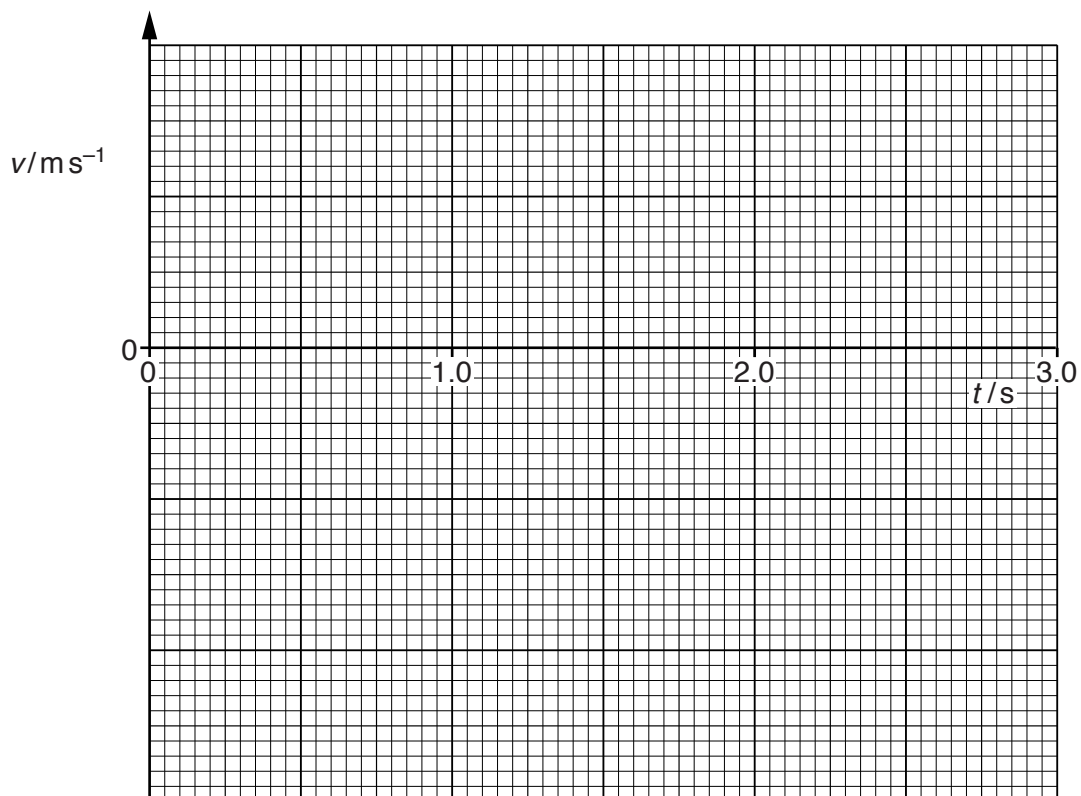


Fig. 2.2