

Solutionbank M1

Heinemann Modular Maths for Edexcel AS and A-level

2 Kinematics in one dimension

Exercise C, Question 5

Question:

The diagram shows three positions of a ball which has been thrown vertically upwards with a velocity of $u \text{ m s}^{-1}$.

(C)

(B)

(A)

Position A is the initial position.

Position B is halfway up.

Position C is at the top of the motion.

Copy the diagram and for each position put on arrows where appropriate to show the direction of the velocity. On the same diagram put on arrows to show the direction of the acceleration.

Solution:

$g \downarrow$ (A) $\uparrow u$, $\downarrow g$ (B) $\uparrow u$, (C) $g \downarrow$ no velocity