

Free fall

IX- SCIENCE

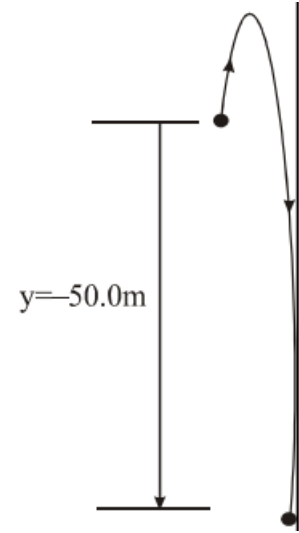
SUBJECT : PHYSICS
CHAPTER NUMBER: 8
CHAPTER NAME : MOTION

CHANGING YOUR TOMORROW

NUMERICAL

1. A ball is thrown upward with an initial velocity of 10.0 m/s from the top of a 50.0m tall building.

- (a) With what velocity will the ball strike the ground ?
- (b) How long does it take the ball to strike the ground.



2. A stone is dropped freely in the river from a bridge. It takes 5s to touch the water surface in the river.

Calculate :

- (i) the height of the bridge from the water level,
- (ii) the distance covered by stone in the last second ($g = 9.8 \text{ m s}^{-2}$)

3. A tennis ball is struck with a racket, firing it straight upward at 22 meters per second. After how much time will it be falling at 15 meters per second ?