

- 8 The three forces acting on a hot-air balloon that is moving vertically are its weight, the force due to air resistance and the upthrust force.

The hot-air balloon descends vertically at constant speed. The force of air resistance on the balloon is F .

Which weight of material must be released from the balloon so that it ascends vertically at the same constant speed?

A F

B $2F$

C $3F$

D $4F$