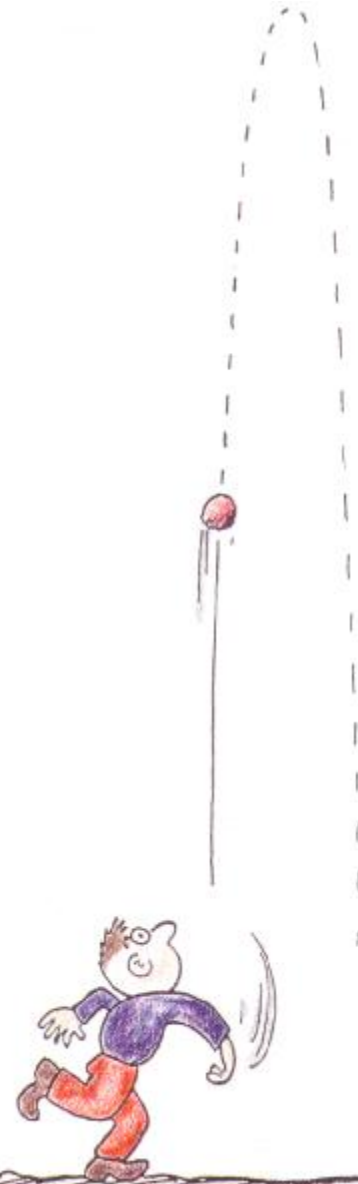


NEXT-TIME QUESTION

A 1-kg rock is thrown at 10 m/s straight upward. Neglecting air resistance, what is the net force that acts on it when it is halfway to the top of its path?



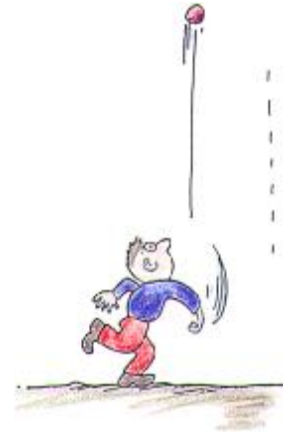
thnx to Howard Brand

Hewitt
Drewitt!



NEXT-TIME QUESTION

A 1-kg rock is thrown at 10 m/s straight upward. Neglecting air resistance, what is the net force that acts on it when it is halfway to the top of its path?



Answer:



In the absence of air resistance, the only force exerted on the 1-kg rock is simply the force of gravity— mg . That's 9.8 newtons, at any speed anywhere along its trajectory!

$$\begin{aligned}\text{NET FORCE} &= mg \\ &= (1\text{kg})(9.8\text{m/s}^2) \\ &= 9.8\text{ N}\end{aligned}$$

WHAT'S THE ACCELERATION OF THE ROCK AT THE TOP OF ITS PATH?

DON'T CONFUSE FORCE VECTORS WITH VELOCITY VECTORS!

