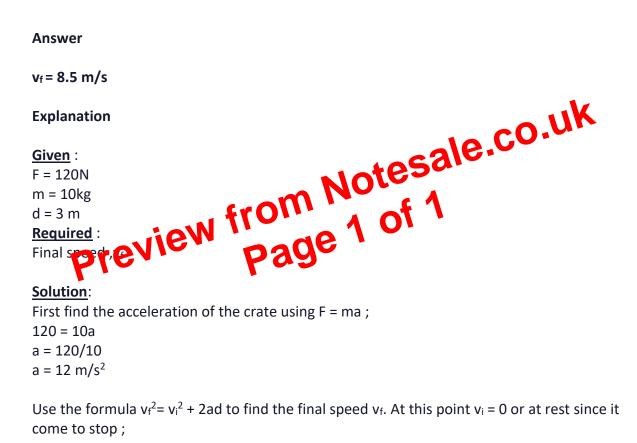
## QUESTION

**10a.7** A 10.0-kg crate is moving to the right on the floor with a speed of 5.0 m/s. A pulling force a 120 N to the right is added to the crate. The coefficient of kinetic friction between the crate and the floor is 0.4. What is the speed of the crate after 3.0 m? [Answer: 8.5 m/s]



 $v_f^2 = v_i^2 + 2ad$ = 0 + 2(12)(3) = 72  $v_f = \sqrt{72}$  $v_f = 8.5 m/s$ , speed of the crate after 3m