

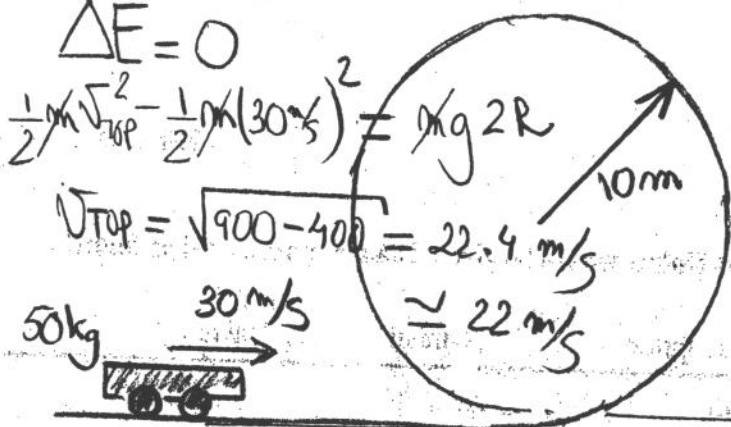
a) 28 m/s

b) 22 m/s

c) 26 m/s

d) 10 m/s

e) 15 m/s



9) A 3 kg body moves along a circle of radius 2 m with a constant speed of 10 m/s. The magnitude of the net force exerted on the body is then:

a) 0 N

b) 30 N

c) 50 N

d) 100 N

e) 150 N

$$F_{net} = F_{cp} = \frac{mv^2}{R} = \frac{(3 \text{ kg})(10 \text{ m/s})^2}{2 \text{ m}} = 150 \text{ N}$$

10) A non-constant horizontal force, plotted below, is acting on a 5 kg-block while it moves from position  $x=0$  m to  $x=4$  m. The work given by this force on the block is:

a) 0.0 J

b) 15 J

c) 10 J

d) 50 J

e) 25 J

$W = \text{AREA}$   
 $= 15 \text{ J}$

