

14 A constant force  $F$  is applied to a stationary object on a flat horizontal surface. The object accelerates from rest and has kinetic energy  $E$  after time  $t$ .

What is the kinetic energy of the object at time  $3t$ ?

A  $4E$

B  $8E$

C  $9E$

D  $16E$

15 A mass  $m$  is situated in a uniform gravitational field.