

PROBLEMS

1. A particle of mass m moves in a straight line with constant acceleration a . It starts from rest at the origin O at time $t = 0$. Find the distance travelled by the particle in time t .

2. A particle of mass m moves in a straight line with constant acceleration a . It starts from rest at the origin O at time $t = 0$. Find the velocity of the particle at time t .

3. A particle of mass m moves in a straight line with constant acceleration a . It starts from rest at the origin O at time $t = 0$. Find the displacement of the particle at time t .

4. A particle of mass m moves in a straight line with constant acceleration a . It starts from rest at the origin O at time $t = 0$. Find the time taken for the particle to reach a velocity v .

5. A particle of mass m moves in a straight line with constant acceleration a . It starts from rest at the origin O at time $t = 0$. Find the time taken for the particle to reach a displacement s .

Time t	Velocity v	Displacement s
0	0	0
$\frac{v}{a}$	v	$\frac{v^2}{2a}$
$\frac{v}{a}$	0	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-2v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-3v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-4v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-5v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-6v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-7v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-8v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-9v$	$\frac{v^2}{2a}$
$\frac{v}{a}$	$-10v$	$\frac{v^2}{2a}$

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