



TYPES OF MOTION – Through tables

Uniform Motion

(Velocity remains constant)

| No. of hours | Velocity / Speed | Distance travelled from the starting point | Acceleration (a) |
|---------------------|-------------------------|---|-------------------------|
| 1 | 10 km/hr | 10 km | $a = 0$ |
| 2 | 10 km/hr | 20 km | $a = 0$ |
| 3 | 10 km/hr | 30 km | $a = 0$ |
| 4 | 10 km/hr | 40 km | $a = 0$ |
| 5 | 10 km/hr | 50 km | $a = 0$ |

Uniformly Accelerated Motion

(Velocity changes, but by equal amounts)

| No. of hours | Velocity / Speed | Distance travelled from the starting point | Current velocity – previous velocity |
|---------------------|-------------------------|---|---|
| 1 | 10 km/hr | 10 km | 0 |
| 2 | 20 km/hr | 30 km | $20 - 10 = 10$ |
| 3 | 30 km/hr | 60 km | $30 - 20 = 10$ |
| 4 | 40 km/hr | 100 km | $40 - 30 = 10$ |
| 5 | 50 km/hr | 150 km | $50 - 40 = 10$ |

Non-Uniformly Accelerated Motion

(Velocity changes by any amount randomly)

| No. of hours | Velocity / Speed | Distance travelled from the starting point | Current velocity – previous velocity |
|---------------------|-------------------------|---|---|
| 1 | 10 km/hr | 10 km | 0 |
| 2 | 70 km/hr | 80 km | $70 - 10 = 60$ |
| 3 | 20 km/hr | 100 km | $20 - 70 = -50$ |
| 4 | 90 km/hr | 190 km | $90 - 20 = 70$ |
| 5 | 40 km/hr | 230 km | $40 - 90 = -50$ |