

Acceleration Word Problems

For the following, find the acceleration rate and identify the type of acceleration (positive, negative, changing direction).

- 1) A car at rest accelerates to 80 km/h in 0.05 h.
- 2) A cat running 9 m/s completely stops in 3 s.
- 3) A woman jogging at 4 m/s slows down to 2 m/s in 2 s.
- 4) A bird leaves a branch and speeds up to 15 km/h in 0.3 h.
- 5) A boy walking 2 m/s northward turns eastward in 0.5 s traveling at the same speed.
- 6) A motorcycle traveling at 60 km/h goes uphill and accelerates to 28 km/h in 0.08 h.
- 7) A rollercoaster car stops at the peak of a drop before rushing down to a speed of 160 km/h in 0.004 h.
- 8) A carnival ride goes around in circles at a constant rate of 14 m/s for 70 s.
- 9) At 1:00 PM, a car was traveling at 75 km/h. By 2:00 PM, the car was traveling at 80 km/h.
- 10) An airplane decelerates from 900 km/h to 873 km/h in 18 s.