

Circular motion, Angular displacement and angular velocity

IX- SCIENCE

SUBJECT : PHYSICS
CHAPTER NUMBER: 8
CHAPTER NAME : MOTION

CHANGING YOUR TOMORROW

HOME ASSIGNMENT

1. The planet Neptune travels in a nearly circular orbit of radius , $r = 4.5 \times 10^9$ km, about the sun. It takes Neptune 165y to make a complete trip around the sun. How fast (in km/h) does not Neptune travel in its orbit ?

2. A circular cycle track has a circumference of 314m with AB as one of its diameter. A cyclist travels from A to B along the circular path with a velocity of constant magnitude 15.7 m/s.

Find :

- (a) the distance moved by the cyclist.
- (b) the displacement of the cyclist if AB represents north-south direction.
- (c) the average velocity of the cyclist

3. Define circular motion.

(b) An artificial satellite is moving in a circular orbit of radius 42,250km. Calculate speed, if it takes 24 hours to revolve once around the earth.