

Chapter 7: Motion and Measurement of Distances

NCERT · Class 6 · Science

Questions

Question 1

Give two examples each, of modes of transport used on land, water and air.

Solution

Land – Train, Bus

Water – Ship, Boat

Air – Helicopter, Aeroplane

Question 2

Fill in the blanks:

(i) One metre is _____ cm.

(ii) Five kilometre is _____ m.

(iii) Motion of a child on a swing is _____.

(iv) Motion of the needle of a sewing machine is _____.

(v) Motion of wheel of a bicycle is _____.

Solution

(i) One metre is **100** cm.

(ii) Five kilometres is **5000** m.

(iii) Motion of a child on a swing is **periodic**.

(iv) Motion of the needle of a sewing machine is **periodic**.

(v) Motion of the wheel of a bicycle is **circular**.

Question 3

Why can a pace or a footstep not be used as a standard unit of length?

Solution

Pace or a footstep cannot be used as a standard unit of length because it varies from person to person.

Question 4

Arrange the following lengths in their increasing magnitude: 1 metre, 1 centimetre, 1 kilometre, 1 millimetre.

Solution

1 millimetre, 1 centimetre, 1 metre, 1 kilometre

Question 5

The height of a person is 1.65 m. Express it into cm and mm.

Solution

$1.65\text{ m} = 165\text{ cm} = 1650\text{ mm}$

Question 6

The distance between Radha's home and her school is 3250 m. Express this distance in km.

Solution

$1\text{ km} = 1000\text{ m}$

Hence, $3250\text{ m} = 3.25\text{ kms}$

Question 7

While measuring the length of a knitting needle, the reading of the scale at one end is 3.0 cm and at the other end is 33.1 cm. What is the length of the needle?

Solution

Length of needle = $33.1 - 3 = 30.1$ cm

Question 8

Write the similarities and differences between the motion of a bicycle and a ceiling fan that has been switched on.

Solution

Similarities – The blades of a fan and the wheels of a bicycle show circular motion

Differences – Bicycles move in rectilinear motion, but the fan does not move in rectilinear motion.

Question 9

Why would you not like to use a measuring tape made of an elastic material like rubber to measure distance? What would be some of the problems you would meet in telling someone about a distance you measured with such a tape?

Solution

An elastic measuring-tape will not give accurate measurements as it stretches in length and reduces in size when stretched. When we express measurements taken with elastic tape, we have to tell whether the tape was stretched. If yes, how much? Hence, it is very difficult to tell the measurement taken from an elastic tape.

Question 10

Give two examples of periodic motion.

Solution

- a) A needle of a sewing machine
- b) Pendulum

Important topics covered in NCERT Solutions for Class 6 Science Chapter 10 Motion and Measurement of Distances

- Story of transport

- How wide is this desk?
- Some measurements
- Standard units of measurements
- Correct measurement of length
- Measuring the length of a curved line
- Moving things around us
- Types of motion

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