Mathematics

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(Chapter – 5) (Understanding Elementary Shapes)
(Class – VI)

Exercise 5.1

Question 1:
What is the disadvantage in comparing line segments by mere observation?

Answer 1:
There may be chance of error due to improper viewing.

Question 2:
Why is it better to use a divider than a ruler, while measuring the length of a line segment?

Answer 2:
It is better to use a divider than a ruler, because the thickness of the ruler may cause difficulties in reading off her length. However divider gives up accurate measurement.

Question 3:
Draw any line segment, say $\overline{AB}$. Take any point C lying in between A and B. Measure the lengths of AB, BC and AC. Is AB = AC + CB?
[Note: If A, B, C are any three points on a line, such that AC + CB = AB, then we can be sure that C lies between A and B.]

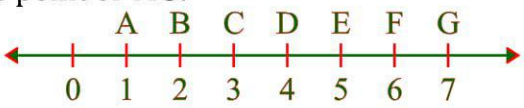
Answer 3:
Yes.

AB = 6.5 cm, AC = 3cm, CB = 3.5 cm
AC + CB = 3 cm + 3.5 cm = 6.5 cm = AB

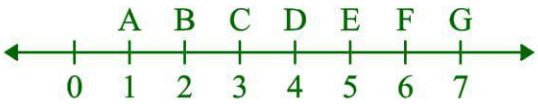
Question 4:
If A, B, C are three points on a line such that AB = 5 cm, BC = 3cm and AC = 8 cm, which one of them lies between the other two?

Answer 4:
$\overline{AC}$ is the longest line segment, thus B is the point between A and C.

Question 5:
Verify whether D is the mid-point of $\overline{AG}$.



Answer 5:
AD = 3 units, DG = 3 units



AD = DG.
Thus, D is the mid-point.

Question 6:

If B is the mid-point of $\overline{AC}$ and C is the mid-point of $\overline{BD}$, where A, B, C, D lie on a straight line, say why AB = CD?

Answer 6:

B is the mid-point of $\overline{AC}$.

$\therefore$ AB = BC ... (i)

And C is the mid-point of $\overline{BD}$.

$\therefore$ BC = CD ... (ii)

From equation (i) and (ii), we get

AB = CD

Question 7:

Draw five triangles and measure their sides. Check in each case, of the sum of the lengths of any two sides is always less than the third side.

Answer 7:

Yes, sum of two sides of a triangle is always greater than the third side.