NCERT SOLUTIONS FOR CLASS 6 MATHS
UNDERSTANDING ELEMENTARY SHAPES EX 5.5

**Exercise 5.5**

**Question 1:**

Which of the following are models for perpendicular lines:

(a) The adjacent edges of a table top.

(b) The lines of a railway track.

(c) The line segments forming the letter 'L'

(d) The letter V.

Answer:

(a) The adjacent edges of a table top are perpendicular to each other.

(b) The lines of a railway track are parallel to each other.

(c) The line segments forming the letter 'L' are perpendicular to each other.

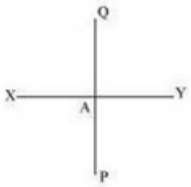
(d) The sides of letter V are inclined at some acute angle on each other.

Hence, (a) and (c) are the models for perpendicular lines.

**Question 2:**

Let $\overline{PQ}$ be the perpendicular to the line segment $\overline{XY}$. Let $\overline{PQ}$ and $\overline{XY}$ intersect in the point A. What is the measure of ∠PAY?

Answer:




From the figure, it can be easily observed that the measure of ∠PAY is 90°.

**Question 3:**

There are two set-squares in your box. What are the measures of the angles that are formed at their corners? Do they have any angle measure that is common?

Answer:

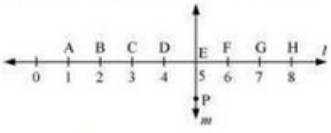
One has a measure of 90°, 45°, 45°.

Other has a measure of 90°, 30°, 60°.

Therefore, the angle of 90° measure is common between them.

**Question 4:**

Study the diagram. The line *l* is perpendicular to line *m*.



(a) Is CE = EG?

(b) Does PE bisect CG?

(c) Identify any two line segments for which PE is the perpendicular bisector.

(d) Are these true?

(i) AC > FG.

(ii) CD = GH.

(iii) BC < EH.

Answer:

(a) Yes. As CE = EG = 2 units

(b) Yes. PE bisects CG since CE = EG.

(c) $\overline{DF}$ and $\overline{BH}$

(d) (i) True. As length of AC and FG are of 2 units and 1 unit respectively.

(ii) True. As both have 1 unit length.

(iii) True. As the length of BC and EH are of 1 unit and 3 units respectively.

********** END **********