



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.

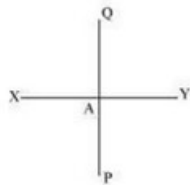
Hence, (a) and (c) are the models for perpendicular lines.

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 $\angle PAY$?

Answer:



From the figure, it can be easily observed that the measure of $\angle PAY$ 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:

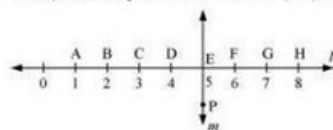
One has a measure of 90° , 45° , 45° .

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.

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