

### Exercise 5.5

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**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.

**Solution:**

The models which show perpendicular lines are,

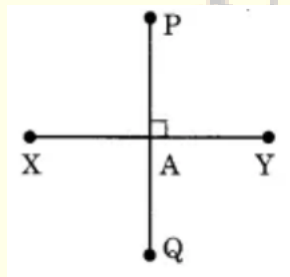
- (a) Perpendicular
- (b) Not perpendicular
- (c) Perpendicular
- (d) Not perpendicular

**Question 2:**

Let PQ be the perpendicular to the line segment XY. Let PQ and XY intersect in the point A. What is the measure of  $\angle PAY$ .

**Solution:**

As we can see in the question, it is given that PQ is perpendicular to XY and thus,



Thus,  $\angle PAY = 90^\circ$

**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?

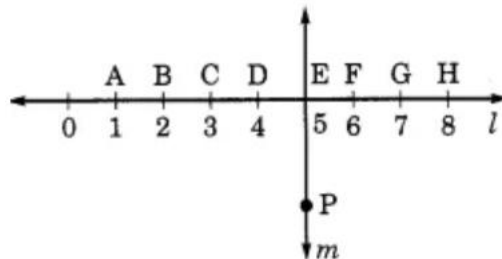
**Solution:**

One set-square has angles as  $45^\circ, 90^\circ, 45^\circ$  and other set-square has angles as  $60^\circ, 90^\circ, 30^\circ$ . The angle that they both have common is angle of  $90^\circ$ .

**NCERT Solutions for Class 6th Maths Chapter 5  
Understanding Elementary Shapes**

**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)  $BC < EH$

**Solution:**

- (a) Yes.
- (b) Yes.
- (c)  $PE$  is the perpendicular bisector for  $CG$  and  $BH$
- (d) (i) True                      (ii) True                      (iii) True