

Q.1 Multiple Choice Questions

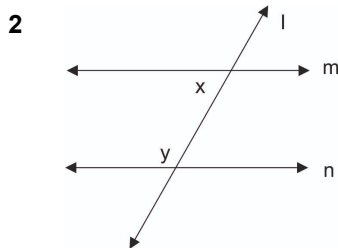
3

- If $P - Q - R$ and $d(P, Q) = 2$, $d(P, R) = 10$ then find $d(Q, R)$.
a. 12 b. 8 c. $\sqrt{96}$ d. 20
- In $\triangle TPQ$, $\angle T = 65^\circ$, $\angle P = 95^\circ$ then which of the following statement correct?
a. $PQ < TP$ b. $PQ < TQ$ c. $TQ < TP < PQ$ d. $PQ < TP < TQ$.
- If a transversal intersects two parallel lines then the sum of interior angles on the same side of the transversal is
a. 0° b. 90° c. 180° d. 360°

Q.2 Solve the following(Any Three)

3

- From the information given below find which of the point is between the other two. If the points are not collinear, state so.
 $d(P, R) = 7$ $d(P, Q) = 10$ $d(Q, R) = 3$



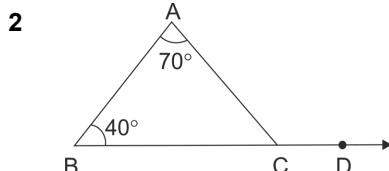
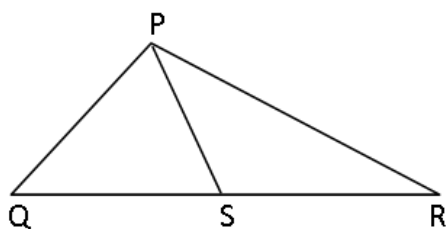
In the given figure, $y = 108^\circ$ and $x = 71^\circ$. Are lines m and n are parallel? Justify?

- If $\triangle XYZ \sim \triangle LMN$, write the corresponding angles of the two triangles and also write the ratios of corresponding sides.
- Write the following statement in conditional form.
Angles in a linear pair are supplementary.

Q.3 Solve the following:(Any One)

2

- In the adjoining figure points S on side QR of $\triangle PQR$. Prove that:- $PQ + QR + RP > 2PS$



In figure $\angle ACD$ is an exterior angle of $\triangle ABC$. $\angle B = 40^\circ$, $\angle A = 70^\circ$.
Find the measure of $\angle ACD$.

Q.4 Solve the following(Any Three)

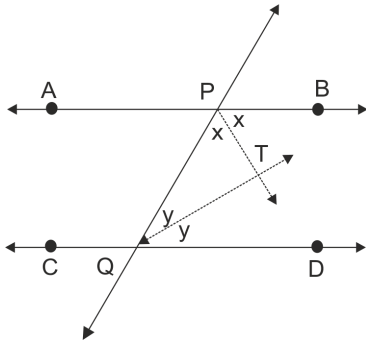
9

- Prove that, if a line is perpendicular to one of the two parallel lines, then it is perpendicular to the other line also.
- Construct $\triangle PQR$, in which $QR = 4.2$ cm, $m\angle Q = 40^\circ$ and $PQ + PR = 8.5$ cm.
- Co-ordinate of point A on a number line is 1. What are the co-ordinates of points on a number line which are at a distance of 7 units from A ?

4 If two sides of a triangle are congruent then the angles opposite to them are congruent.

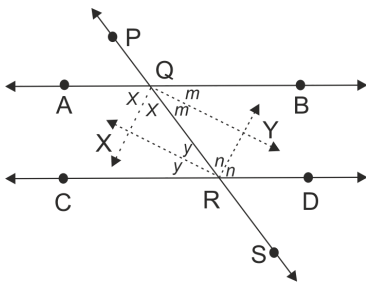
Q.5 Answer the following.(Any Two)

1



In Figure, line $AB \parallel$ line CD and line PQ is the transversal. Ray PT and ray QT are bisectors of $\angle BPQ$ and $\angle PQD$ respectively. Prove that $m\angle PTQ = 90^\circ$.

2



In the adjoining figure line $AB \parallel$ Line CD line PS is the transversal. Ray QX , Ray QY , Ray RX & Ray RY bisects $\angle AQR$, $\angle BQR$, $\angle QRD$ & $\angle QRC$ are angle bisectors then prove that $\square QXRY$ is a rectangle.

3 Construct $\triangle PQR$, in which $PQ - PR = 2.4$ cm, $QR = 6.4$ cm and $\angle PQR = 55^\circ$.