Review Exercise 10

Q.1 **Which of the following are true and which are false.**

(i) A ray has two end points. (False)

(ii) In a triangle there can be only are right angle. (True)

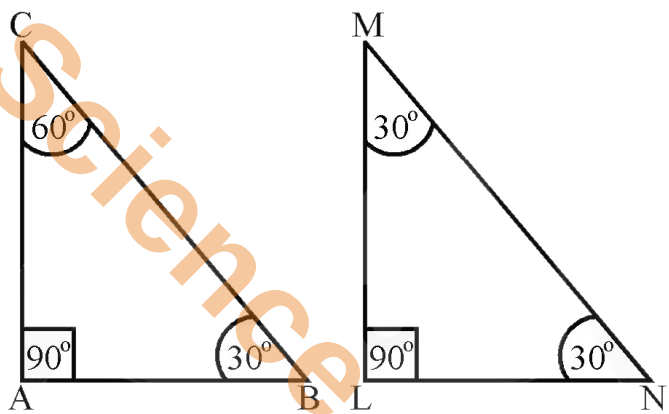
(iii) Three points are said to be collinear if they lie on same line. (True)

(iv) Two parallel lines intersect at a point. (False)

(v) Two line can intersect only one point. (True)

(vi) A triangle of congruent sides has non-congruent angles. (False)

Q.2 **In $\Delta ABC \cong \Delta LMN$, then**

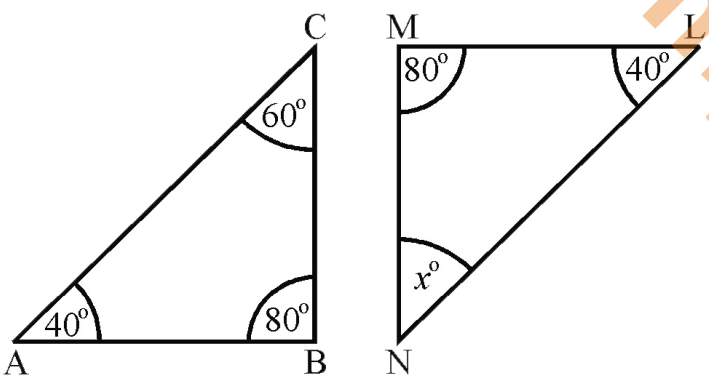


(i) $m\angle M \cong \underline{m\angle B} = 30^\circ$

(ii) $m\angle N \cong \underline{m\angle C} = 60^\circ$

(iii) $m\angle A \cong \underline{m\angle L} = 90^\circ$

Q.3 **If $\Delta ABC \cong \Delta\angle MN$ then find the value of x**



$m\angle N = m\angle C = 60^\circ$

$m\angle N = x = 60^\circ$

Sum of three angle in a triangle is 180

So $x + 80 + 40 = 180$

$x + 120 = 180$

$x = 180 - 120$

$x = 60^{\circ}$

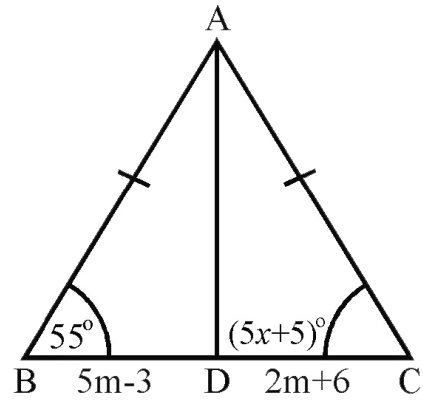
Q.4 Find the value of unknowns for the given congruent triangles.

It is an isosceles triangle

$$m\overline{AB} = m\overline{AC}$$

and $m\angle B = m\angle C$

when we draw a perpendicular from point A to BC it Bisect



So $\overline{BD} \cong \overline{DC}$

$5m - 3 = 2m + 6$

$5m - 2m = 6+3$

$3m = 9$

$m = \frac{9}{3}$

$m = 3$

opposite angle are congruent

$\therefore \quad \angle B = \angle C$

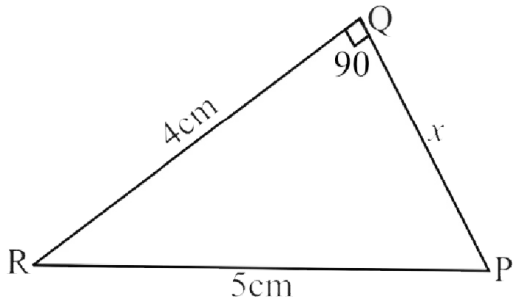
$55 = 5x + 5$

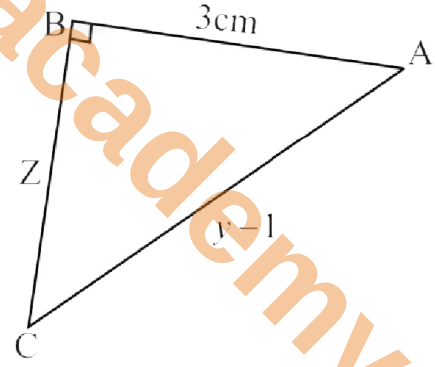
$55 - 5 = 5x$

$\frac{50}{5} = x$

$x = 10$

Q.5 If ΔPQR = ΔABC, the find the unknowns





By using definition of congruent triangles.

$\overline{RP} = \overline{AC}$

$5 = y - 1$

$5 + 1 = y$

$y = 6cm$

$\overline{AB} = \overline{QP}$

$3cm = x$

Or

$x = 3cm$

$\overline{BC} = \overline{QR}$

$Z = 4cm$