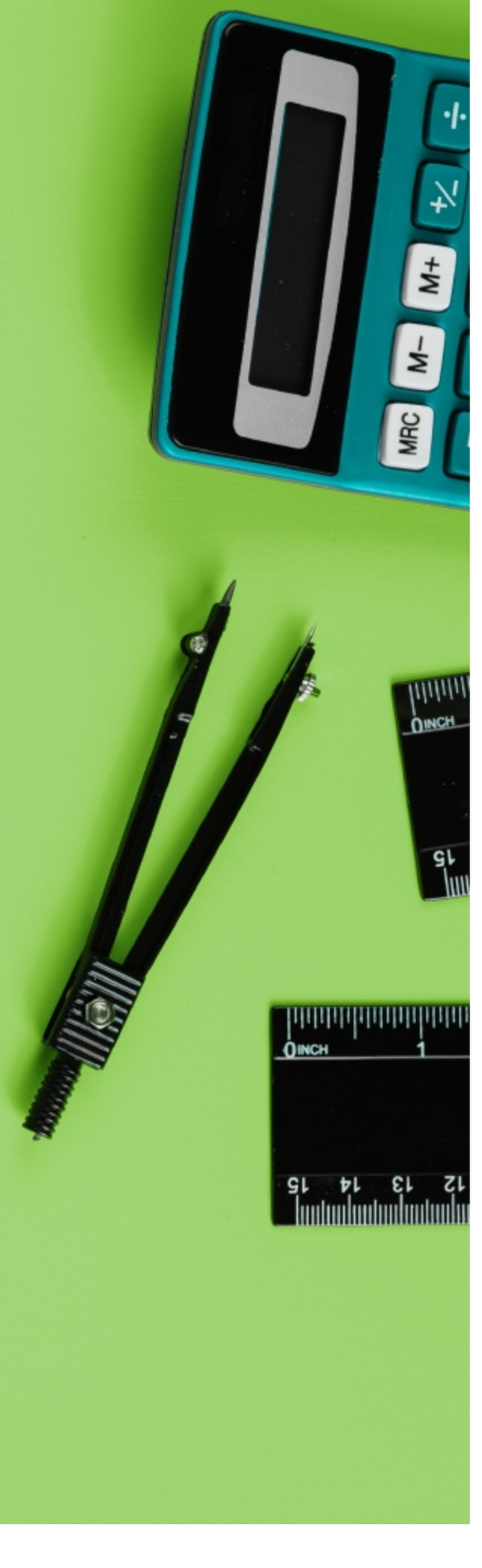
RD Sharma Solutions

Class 7

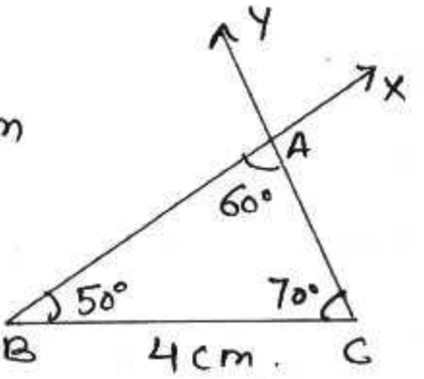
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Exercise 17-4

Q.1 Construct ΔABC in which $BC = 4cm$, $\angle B = 50°$ and $\angle C = 70°$

Solution: **Steps**



(i) Draw a line segment $BC = 4cm$

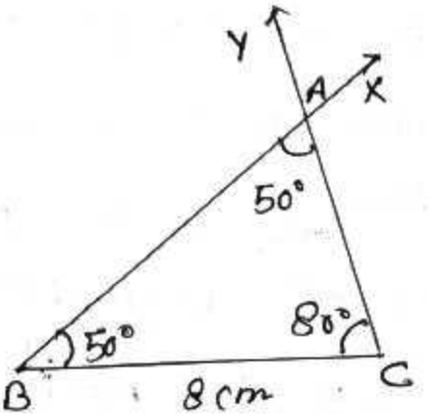
(ii) Draw $\angle XBC = 50°$, $\angle BCY = 70°$

(iii) Let Bx and CY Meet at point A.

(iv) Join AB, AC

(v) ΔABC is required triangle.

Q.2 Draw ΔABC in which $BC = 8cm$, $\angle B = 50°$ and $\angle A = 50°$.



Solution: $\because \angle A + \angle B + \angle C = 180°$

$\Rightarrow 50° + 50° + \angle C = 180°$

$\angle C = 180 - 100°$

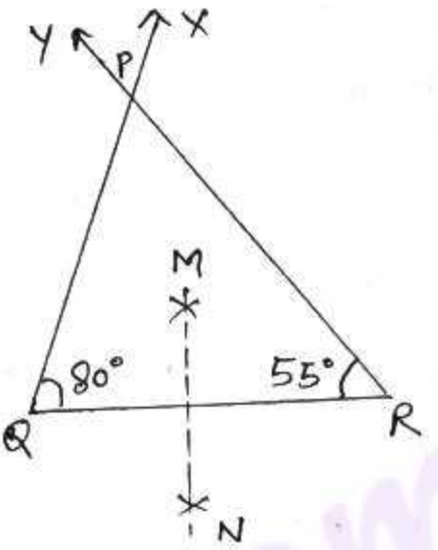
$= 80°$.

Steps of construction is same as above.

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Q.3 Draw $\triangle PQR$ in which $\angle Q = 80°$, $\angle R = 55°$ and $QR = 4.5$ cm. Draw the perpendicular bisector of side QR.



Solution:

Steps:

(i) Draw a line $QR = 4.5$ cm

(ii) Draw $\angle XQR = 80°$

$\angle YRQ = 55°$

(iii) Let QX and RY meet at point P.

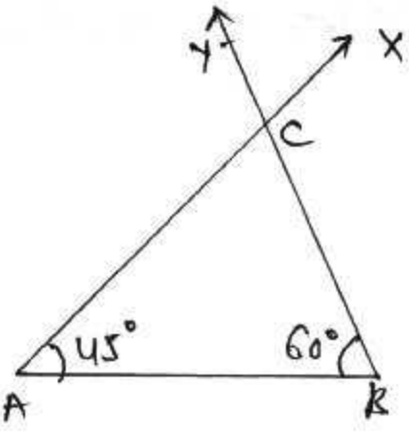
(iv) $\triangle PQR$ is required triangle.

(v) With Q as centre and radius more than half of QR cut arcs on either side of QR.

(vi) With R as centre and same radius cut arcs on either side of QR. Let these arcs meets previous arcs at M and N.

(vii) MN is perpendicular bisector of QR.

Q.4 Construct $\triangle ABC$ in which $AB = 6.4$ cm, $\angle A = 45°$ and $\angle B = 60°$.



Solution:

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Solution: Steps: (i) Draw a line segment AB = 6·4cm

(ii) Draw $\angle BAX = 45°$

(iii) Draw $\angle ABY$ with Y on the same side of AB as X such that $\angle ABY = 60°$

(iv) Let AX and BY intersect at C

(v) ABC is the required triangle.

Q.5 Draw $\triangle ABC$ in which $AC = 6\,cm$, $\angle A = 90°$, $\angle B = 60°$

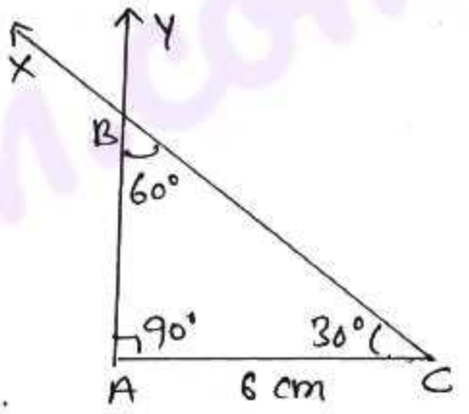
Solution:

Steps: $\because \angle A + \angle B + \angle C = 180°$

$\Rightarrow 90° + 60° + \angle C = 180°$

$\Rightarrow 150° + \angle C = 180°$

$\Rightarrow \angle C = 180 - 150° = 30°$.



(i) Draw a line segment $AC = 6\,cm$

(ii) Draw $\angle CAY = 90°$, $\angle ACX = 30°$.

(iii) Let CX and AY meet at point B.

(iv) $\triangle ABC$ is the required triangle where $\angle ABC = 60°$.

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