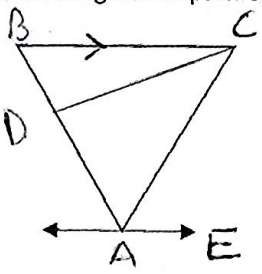
INTERNATIONAL INDIAN SCHOOL BURAIDAH
Worksheet 2025-26
CLASS: X
SUBJECT: MATHEMATICS
Chapter No:6 – Triangles

MCQ:

1-In $\Delta PQR, if\ PS\ is\ the$ internal bisector of ∠P meeting QR at S and PQ=15 cm ,QS =(3+x) cm , SR = (x-3) cm and PR = 7 cm then find the value of x.

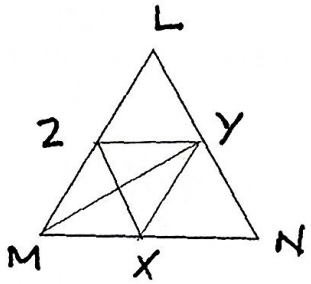
(a) 2.85 cm (b) 8.25 cm (c) 5.28 cm (d) 8.52 cm

2-In the figure given below ,ABC is a triangle .BC is parallel to AE .IF BC = AC ,then what is the value of ∠CAE



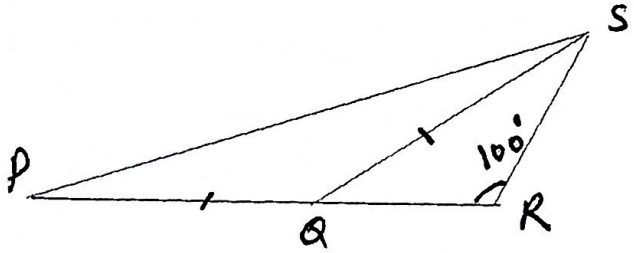
(a)20^0 (b) 40^0 (c) 30^0 (d) 50^0

3-In the figure given below ,YZ is parallel to MN ,XY is parallel to LM and XZ is parallel to LN .Then MY is:



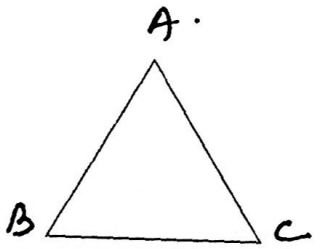
(a) The median of ΔLMN (b) The angular bisector of ∠LMN
(c) perpendicular to LN (d) perpendicular bisector of LN

4-In the given below figure , PQ=QS and QR =RS If ∠SRQ = 100^0 then find the angle of ∠QPS



(a)40^0 (b)20^0 (c) 30^0 (d) 15^0

5-The vertical angle of an isosceles triangle is 15^0 more than each of its base angles what is the vertical angle ?



(a)35^0 (b)65^0 (c) 55^0 (d) 70^0

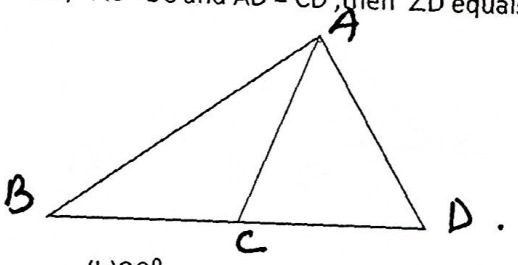
6-In ΔABC , D and E are points on sides AB and AC ,such that DE II BC .If AD = x , DB = x-2 , AE = x+2 and EC = x-1 ,then the value of x is :

(a) 4 (b) 1 (c) 2 (d) 8

7- In ΔABC ,the angle bisector of $\angle A$ cuts BC at E .Find the length of AC ,if the lengths of AB ,BE and EC are 9 cm ,3.6 cm and 2.4 cm ?

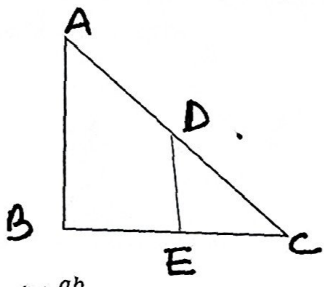
(a)5. 4 cm (b) 4.8 cm (c) 8 cm (d) 6 cm

8-In the given figure , if $\angle B = 38^0$, AC =BC and AD = CD ,then $\angle D$ equals to:



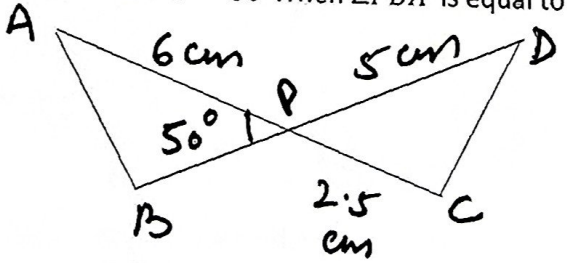
(a)26^0 (b)38^0 (c) 28^0 (d) 52^0

9-In ΔABC DE II AB .if AB = a , DE = x , BE = b and EC = C .Express x in terms of a , b and c .



(a) $\frac{ac}{b}$ (b) $\frac{ab}{c}$ (c) $\frac{ac}{b+c}$ d) $\frac{ab}{b+c}$

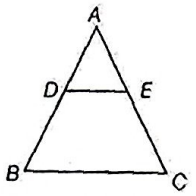
10- In fig , two line segments , AC and BD intersect each other at the point P such that PA =6 cm , PB= 3 cm , PC = 2.5 cm ,PD =5 cm , $\angle APB = 50^0$ $\angle CDP = 30^0$.Then $\angle PBA$ is equal to



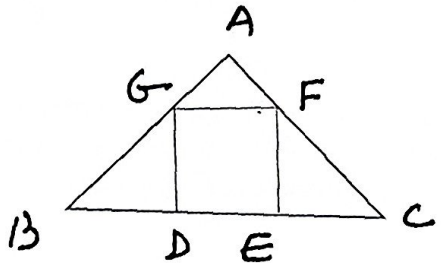
(a)30^0 (b)80^0 (c) 60^0 (d) 100^0

Subjective :

1-In the given figure, DE ‖ BC.such that AD = (4x-3) cm , AE = (8x-7) cm , BD =(3x-1) cm and CE = (5x-3) cm find the value of x



2-In the given figure , DEFG is a square and $\angle BAC = 90^0$, Prove that :

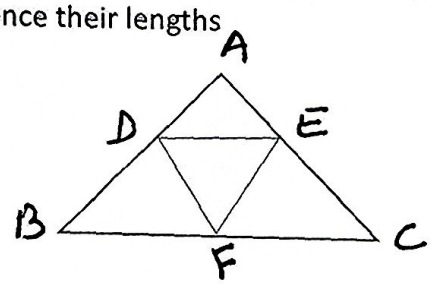


(i) $\Delta AGF \sim \Delta DBG$

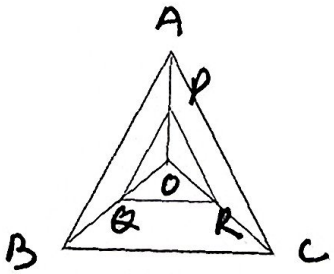
(ii) $\Delta AGF \sim \Delta EFC$

(iii) DE^2 = BD X EC

3-In the given figure ,AD= 3 cm ,AE = 5 cm ,BD= 4 cm ,CE = 4 cm ,CF =2cm ,BF =2.5 cm ,then find the pair of parallel lines and hence their lengths



4-In the given figure PQ ‖ AB and PR ‖ AC Prove that QR ‖ BC



5-The diagonals of Quadrilateral ABCD intersect each other at the point O Such that $\frac{AO}{OC} = \frac{BO}{OD}$.Show that ABCD is aTrapezium.

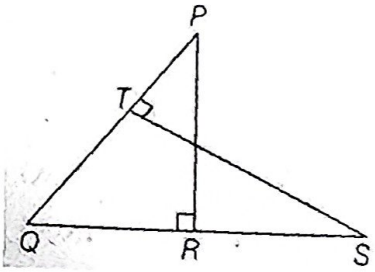
6-Through the midpoint M of the side CD of a Parallelogram ABCD ,the line BM is drawn intersecting AC

at L and AD produced at E and AD= DE .Prove that EL = 2BL.

7-D is the point on the side BC of a triangle ABC such that $\angle ADC = \angle BAC$ prove that CA^2=CB.CD

8-If AD and PM are medians of triangles ΔABC and ΔPQR respectively where $\Delta ABC \sim \Delta PQR$ Prove that $\frac{AB}{PQ} = \frac{AD}{PM}$

9- In the given figure, PQR and QST are two right-angled triangles, right-angled at R and T respectively. Prove that QR × QS = QP × QT



10-Prove that If a line is drawn parallel to one side of a triangle to intersect the other two side in distinct points ,the other two sides are divided in the same ratio.

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