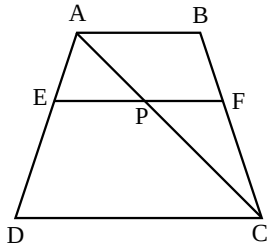
TRIANGAL

BPT OR THALES THEOREM

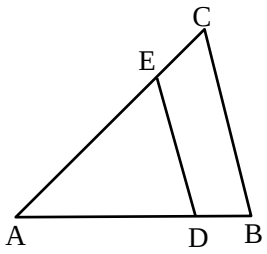
EXERCISE

Q.1 In fig., EF || AB || DC. Prove that $\frac{AE}{ED} = \frac{BF}{FC}$.



Q.2 In figure, $\angle A = \angle B$ and DE || BC. Prove that AD = BE

Q.3 In fig., DE || BC. If AD = 4x – 3, DB = 3x – 1, AE = 8x – 7 and EC = 5x – 3, find the value of x.

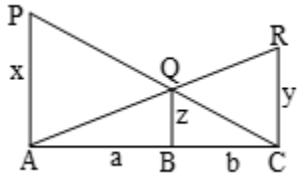


Q.4 Prove that the line segment joining the midpoints of the adjacent sides of a quadrilateral form a parallelogram.

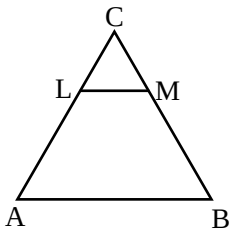
Q.5 In fig. DE || BC and CD || EF. Prove that $AD^2 = AB \times AF$.

Q.6 In the given figure PA, QB and RC each is perpendicular to AC such that PA = x, RC = y, QB = z, AB = a and BC = b.

Prove that $\frac{1}{x} + \frac{1}{y} = \frac{1}{z}$.

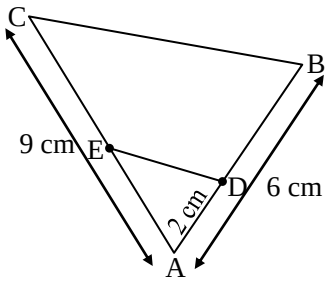


Q.7 In fig., LM || AB. If AL = x – 3, AC = 2x, BM = x – 2 and BC = 2x + 3, find the value of x.



Q.8 In a given ΔABC, DE || BC and $\frac{AD}{DB} = \frac{3}{4}$. If AC = 14 cm, find AE.

Q.9 In figure, DE || BC. Find AE.



Q.10 In figure, ABC is a triangle in which AB = AC. Points D and E are points on the sides AB and AC respectively such that AD = AE. Show that the points B, C, E and D are concyclic.

ANSWER KEY

3. x = 1

7. x = 9

8. AE=6 cm

9. AE = 3 cm