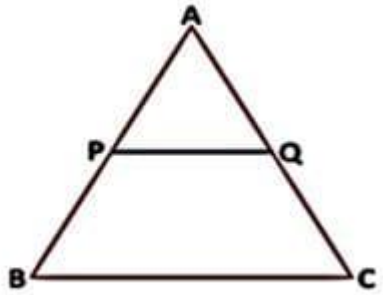
CBT EXAM AUGUST (2025-26)
CLASS X (MATHS)

 # SYLLABUS :

CHAPTER 6 : CO - ORDINATE GEOMETRY
CHAPTER 7 : TRIANGLES

Q 1 : In the given figure PQ II BC, if AP = 3 cm, PB = 4 cm and AQ = 6 cm then find QC ?



A) 2 cm b) 6 cm c) 8 cm d) 10 cm

Q 2 : Assertion : If two angles of any triangle are equal to the corresponding two angles of another triangle then the third angles are NOT necessarily equal.

Reason : The sum of three angles of any triangle is equal to 180 degree.

A) A and R both are true, and R is correct explanation for A.
B) A and R both are true, but R is not the correct explanation for A.
C) A is true, but R is false.
D) A is false, but R is true.

Q 3 : What is the relation between x and y such that the point (x, y) is equidistant from the points (7, 1) and (3, 5).

A) x - y = 4
B) x - y = 2
C) x + y = 4
D) x + y = 2

Q 4 : Name the type of triangle formed by the points A (–5, 6), B (–4, –2) and C (7, 5).

A) Isosceles Triangle
B) Right angle triangle
C) Scalene Triangle
D) Equilateral Triangle

Q 5 : What is the distance of a point P(x, y) from the origin.

A) $\sqrt{(x^2 - y^2)}$ units
B) $(x^2 + y^2)$ units
C) $\sqrt{(x^2 + y^2)}$ units
D) $(x^2 + y^2)$ units

Q 6 : What will be the length of an altitude of an equilateral triangle of side a?

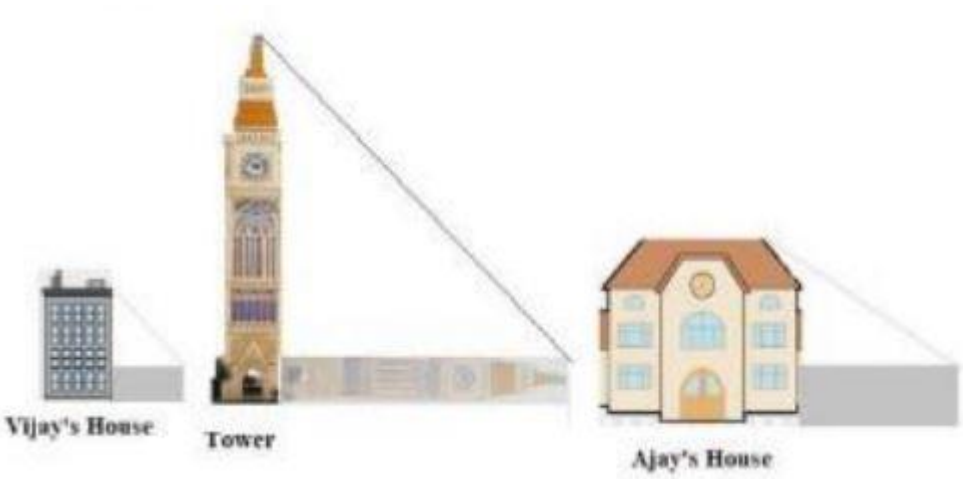
A) $(\sqrt{3}/2)$ a
B) (3/2) a
C) $(\sqrt{5}/2)$ a
D) (5/2) a

Q 7 : Section formula states that the coordinates for the point divides a line segment internally are :

A) [(mx2 + nx1)/(m x n), (my2 + ny1)/(m x n)]
B) [(mx2 - nx1)/(m - n), (my2 - ny1)/(m - n)]
C) [(mx2 - nx1)/(m + n), (my2 - ny1)/(m + n)]
D) [(mx2 + nx1)/(m + n), (my2 + ny1)/(m + n)]

CASE STUDY BASED :

Vijay is trying to find the average height of a tower near his house. He is using the properties of similar triangles. The height of Vijay's house is 20m, when Vijay's house casts a shadow 10m long on the ground. At the same time, the tower casts a shadow 50m long on the ground and the house of Ajay casts 20m shadow on the ground.



Q 8 : What is the height of the tower?

A) 20 m
B) 50 m
C) 70 m
D) 100 m

Q 9 : What is the height of Ajay’s house?

A) 20 m
B) 30 m
C) 40 m
D) 50 m

Q 10 : When the tower casts a shadow of 40m, same time what will be the length of the shadow of Vijay’s house?

A) 8 m
B) 15 m
C) 16 m
D) 32 m