

## IEM KOLKATA

## GEOMETRY

Instructor: Akash Bhattacharya

Q1) Find the measure of an angle if five times its complement is  $10^\circ$  less than twice its supplement.

Q2) If angles P and Q are complementary to one another, and angle P is two times of angle Q. Calculate the measures of angles P and Q.

Q3) If the largest angle in a triangle is  $70^\circ$ , what is least possible value of the smallest angle of the triangle?

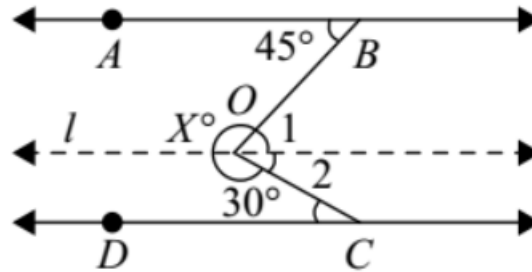
Q4) Two angles are supplementary and the ratio of the angles is 1:4. what is the value of smaller angle?

(a) 36 degrees (b) 45 degrees (c) 35 degrees (d) 72 degrees

Q5) The complement of  $30^\circ 20'$  is:

(a)  $69^\circ 40'$  (b)  $59^\circ 40'$  (c)  $35^\circ 80'$  (d)  $159^\circ 40'$

Q6) In the given,  $AB \parallel CD$ . Then X is equal to:



(a)  $93^\circ$  (b)  $103^\circ$  (c)  $89^\circ$  (d)  $285^\circ$

Q7) If a line divides two sides of a triangle proportionally, then it is:  
(A) a median (B) an altitude (C) a perpendicular bisector (D) parallel to the third side

Q8) You're drawing a triangle where two of its angles are each  $60^\circ$ . What type of triangle have you created?

(A) Isosceles (B) Right-angled (C) Equilateral (D) Scalene

Q9) Ramanujan is building a ramp. The sides of the ramp measure 6 cm and 8 cm. Find out the length of the diagonal support beam (the hypotenuse) to complete the design?

(A) 10 cm (B) 12 cm (C) 14 cm (D) 9 c

Q10) The ratio of the areas of two similar triangles is:

(A) Equal to the ratio of their sides (B) Equal to the square of the ratio of their sides (C) Equal to the cube of the ratio of their sides (D) None of these

Q11) In a circle, a chord is a line segment:

(A) Joining two points on the circle (B) Passing through the center of the circle (C) Parallel to the radius (D) None of these

Q12) A triangle has 7 cm, 24 cm, and 25 cm sides. What type of triangle is it?

(a) Scalene (b) Right-angled (c) Isosceles (d) Equilateral