



**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
SECOND PERIODIC TEST 2019-20
MATHEMATICS (SET-B) – ANSWER KEY**



Q.NO1.	<u>SECTION A</u>
(a)	Find the measure of the exterior angle of a triangle, if interior opposite angles are 60° and 45° . Ans: 105°
(b)	Find the measure of each angle of a triangle DEF, if all the 3 angles are equal. Ans: 60°
(c)	One of the acute angles of a right triangle is 40° . Find the other acute angle. Ans: 50°
(d)	The lengths of two sides of a triangle are 6cm and 8cm. Between what two measures should the length of the third side fall? Ans: 2cm and 14cm
Q.NO2.	<u>SECTION B</u>
(a)	The three angles of a triangle are in the ratio 5 : 6 : 7. Find the largest angle. Ans: $5x + 6x + 7x = 180^\circ$ $18x = 180^\circ$ $x = 10^\circ$ The largest angle = 70°
(b)	Verify if 5cm, 7cm, 9cm can be the lengths of the sides of a right angled triangle. (Show the working) Ans: Hypotenuse ² = height ² + base ² (Pythagoras Theorem) LHS = $9^2 = 81$ cm RHS = $7^2 + 5^2 = 49 + 25 = 74$ cm They can't be the sides of a right angled triangle.
(c)	Construct a right angled triangle ABC with $\angle A = 90^\circ$, AB = 5 cm & BC = 7 cm. Ans: Draw AB Construction of 90° Construction of BC & Completion of the triangle
(d)	In $\triangle PQR$, PR = PQ. Find the values of $\angle QRP$, $\angle PQR$, $\angle RPQ$ <div style="text-align: center;"> </div> Ans: $\angle QRP = 180^\circ - 108^\circ = 72^\circ$ (Linear pair) $\angle QRP = \angle PQR = 72^\circ$ (Base angles of an isosceles triangle) $\angle RPQ = 36^\circ$ (Any reason)
(e)	Construct a triangle LMN in which LM = 6cm, MN = 3cm and LN = 5cm. Ans: Drawing LM Arc of MN Arc of LN & completion of the triangle

Q.NO.

SECTION – C

3.

The hypotenuse of a right triangle is 13cm long. If one of the remaining two sides is of length 12cm, find the length of the other side.

Ans: $(\text{hyp})^2 = b^2 + h^2$
 $13^2 = 12^2 + h^2$
 $13^2 - 12^2 = h^2$
 $169 - 144 = 25 = h^2$
 $h^2 = 5^2$
 $h = 5\text{cm}$

4.

Draw a line m parallel to the given line n at a distance of 5.2cm away from it.

Ans: Drawing the line n + perpendicular line
Arc at 5.2 cm
Construction of 90°
Drawing the parallel line