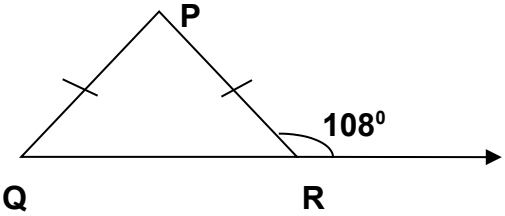
INDIAN SCHOOL MUSCAT
MIDDLE SECTION
SECOND PERIODIC TEST 2019-20
CLASS 7 - MATHEMATICS (SET-A) – ANSWER KEY

Q.NO1.	SECTION A
(a)	**An exterior angle of a triangle is 100^0 and one of the two interior opposite angles is 30^0. Find the other angle.** **Ans:** $100^0 - 30^0 = 70^0$
(b)	**One of the acute angles of a right triangle is 40^0.Find the other acute angle.** **Ans:** 50^0
(c)	**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
(d)	**Find the measure of each angle of a triangle LMN, if all the 3 angles are equal.** **Ans:** 60^0

Q.NO2.	SECTION B
(a)	**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
(b)	**Verify if 5cm, 7cm, 9cm can be the lengths of the sides of a triangle.** **(Show the working)** **Ans:** 5cm + 7cm = 12cm > 9cm 7cm + 9cm = 16cm > 5cm 9cm + 5cm = 14cm > 7cm Yes, given measurements can be the sides of a triangle.
(c)	**Construct a triangle PQR , given that PQ = 4cm ,QR = 6.5cm and $\angle PQR = 60^0$** **Ans:** Drawing QR Construction of 60^0 Arc of PQ+ Joining the triangle
(d)	**In $\triangle$ PQR, PR= PQ. Find the values of $\angle QRP$, $\angle PQR$, $\angle RPQ$**  **Ans:** $\angle QRP = 180^0 - 108^0 = 72^0$(Linear pair) $\angle QRP = \angle PQR = 72^0$ (Base angles of an isosceles triangle) $\angle RPQ = 36^0$ (Any reason)
(e)	**The three angles of a triangle are in the ratio 5 : 6 : 7. Find the largest angle.** **Ans:** $5x + 6x + 7x = 180^0$ $18x = 180^0$ $x = 10^0$ The largest angle = 70^0

Q.NO.	
3.	**The hypotenuse of a right triangle is 17cm long. If one of the remaining two sides is of length 8cm, find the length of the other side.** **Ans:** $(hyp)^2 = b^2 + h^2$ $17^2 = 8^2 + h^2$ $17^2 - 8^2 = h^2$ $289 - 64 = 225 = h^2$ $h^2 = 15^2$ $h = 15cm$
4.	**Draw a line parallel to the given line n at a distance of 4.8 cm away from it.** **Ans:** Drawing the line n + perpendicular line Arc at 4.8 cm Construction of 90^0 Drawing the parallel line