



**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
SECOND PERIODIC TEST 2018-19
MATHEMATICS – ANSWER KEY**



CLASS : 07

SET B

Q.NO.1

SECTION A - FILL IN THE BLANKS

- (a) Two angles of a triangle are 60° and 25° , the measure of third angle is 95°
- (b) The longest side in the $\triangle PQR$, right angled at Q is PR
- (c) The exterior angle of a triangle is 105° , the measure of its adjacent interior angle is 75°

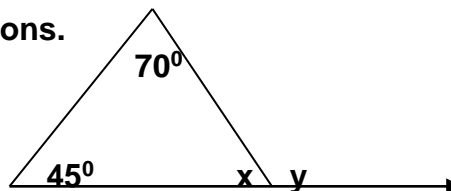
Q.NO.2

SECTION B-‘2’ MARK QUESTIONS

- (a) Construct $\triangle PQR$ in which $PQ = 6\text{cm}$, $QR = 3.5\text{cm}$ and $PR = 5\text{cm}$.
Ans. Each side (1/2) label (1/2)

Find the values of x, y . Give reasons.

(b)



Ans. $y = 115^\circ$ (Exterior angle property)
 $x = 180^\circ - 115^\circ = 65^\circ$ (Linear pair)

Is it possible to draw a triangle with sides 7.5cm , 3.5cm , 5.5cm. Give reason.

Ans. $7.5 + 3.5 = 11\text{cm} > 5.5\text{cm}$

$$3.5 + 5.5 = 9\text{cm} > 7.5\text{cm}$$

(c)

$$7.5 + 5.5 = 13 > 3.5\text{ cm}$$

7.5cm , 3.5cm , 1.5cm can be the sides of a triangle.

Reason : Sum of any two sides of a triangle is greater than the third side.

Find the length of the side PQ in the right triangle PQR with sides $QR=8\text{cm}$, $PR=10\text{cm}$ and $\angle Q = 90^\circ$.

$$PQ^2 = PR^2 - QR^2$$

(d)

$$= 100 - 64$$

$$= 36$$

$$AB = 6\text{cm}$$

Q.NO

SECTION - C (‘3’ MARK EACH – TOTAL (10 MARKS))

- 3 Construct $\triangle ABC$ in which $BC=5\text{cm}$, $AB= 8\text{cm}$ and $\angle C = 90^\circ$
- 4 A 20m long ladder reached a window 16m high from the ground on placing it against a wall at a certain distance. Find the distance of the foot of the ladder from the wall.

$$\text{hyp} = 20\text{m}$$

$$\text{Height} = 16\text{ m}$$

$$\text{Base} = ?$$

$$\text{base}^2 = \text{Hyp}^2 - \text{height}^2$$

$$= 400 - 256$$

$$= 144$$

$$\text{Distance} = 12\text{cm}$$

- 5 Draw a line AB and consider a point P not on it. Through P , draw a line XY parallel to line AB.