



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



CLASS : 07

SET A

Q.NO.1

SECTION A - FILL IN THE BLANKS

- (a) The exterior angle of a triangle is 70° , the measure of its adjacent interior angle is 110°
- (b) The longest side in the $\triangle ABC$, right angled at C is AB
- (c) Two angles of a triangle are 40° and 55° , the measure of third angle is 85°

Q.NO.2

SECTION B-'2' MARK QUESTIONS

Is it possible to draw a triangle with sides 7.5cm, 3.5cm, 1.5cm. Give reason.

Ans. $7.5 + 3.5 = 11\text{cm} > 1.5\text{cm}$ Yes

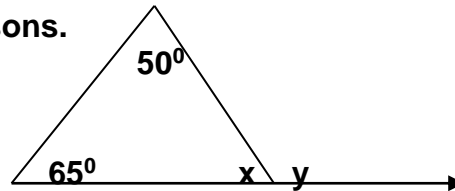
- (a) $3.5 + 1.5 = 5\text{cm} > 7.5\text{cm}$ No
 $7.5 + 1.5 = 9 > 3.5\text{cm}$ Yes (1)

7.5cm, 3.5cm, 1.5cm can not be the sides of a triangle.(1/2)

Reason : Sum of any two sides of a triangle is not greater than the third side.

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)

(c)

Construct $\triangle PQR$ in which $PQ = 5\text{cm}$, $QR = 3.5\text{cm}$ and $PR = 5\text{cm}$.

Find the length of the side AB in the right triangle ABC with sides $AC = 13\text{cm}$, $BC = 5\text{cm}$ and $\angle B = 90^\circ$.

- (d) Ans. $AB^2 = AC^2 - BC^2$
 $= 169 - 25$
 $= 144$
 $AB = 12\text{cm}$

Q.NO

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

- 3 Draw a line AB and consider a point P not on it. Through P, draw a line XY parallel to line AB.
- 4 A 17m long ladder reached a window 15m 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.

Ans. hyp = 17m
Height = 15 m
Base = ?
 $\text{base}^2 = \text{Hyp}^2 - \text{height}^2$
 $= 289 - 225$
 $= 64$
Distance = 8cm

5 Construct $\triangle ABC$ in which $BC=4\text{cm}$, $AB= 5\text{cm}$ and $\angle C =90^\circ$