

Perimeter and Area

Subtopic: Area of a Triangle

Section 1

1 Mark T for True and F for False.

1a Given any type of triangle, we can always make a parallelogram.

1b Area of a triangle is $1/2 \times \text{base} \times \text{height}$.

1c Given any type of parallelogram, we can always make congruent triangles.

2 Choose the correct answer.
Triangles equal in area need

a) To be congruent

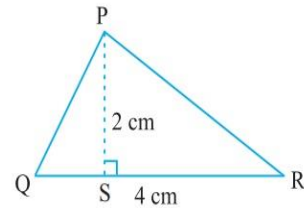
b) Not be congruent

Section 2

3 Fill in the blanks.

The area of the triangle PQR is

_____.



4 Fill the missing values.

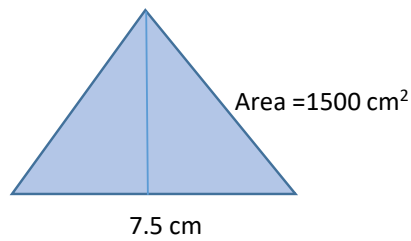
| SN | Base | Height | Area of Triangle |
|----|-------|---------|----------------------|
| a | 15 cm | | 87 cm^2 |
| b | | 31.4 cm | 1256 cm^2 |
| c | 22 cm | | 170.5 cm^2 |
| d | 21cm | | 105 cm^2 |

Perimeter and Area

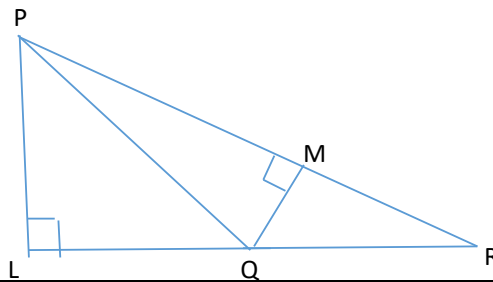
Subtopic: Area of a Triangle

Section 3

- 5 Find the height of a triangle whose area is 1500 cm^2 and base is 7.5 cm .



- 6 In ΔPQR , $PR = 10 \text{ cm}$, $QR = 4 \text{ cm}$ and $PL = 5 \text{ cm}$. Find:
a) the area of the ΔPQR , b) QM



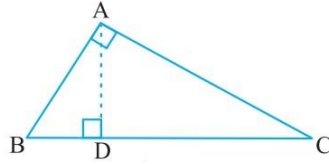
- 7 The area of a triangle is equal to that of a square whose side measures 30 cm . Find the side of the triangle whose corresponding altitude is 36 cm .

Perimeter and Area

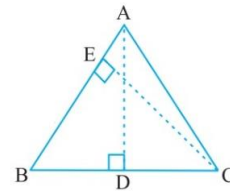
Subtopic: Area of a Triangle

Section 4 : Think and answer questions below:

- 8 ΔABC is right angled at A. AD is perpendicular to BC. If AB = 5 cm, BC = 10 cm and AC = 12 cm, find the area of ΔABC . Also find the length of AD.



- 9 ΔABC is isosceles with AB = AC = 8 cm and BC = 9 cm. The height AD from A to BC, is 6 cm. Find the area of ΔABC . What will the height from C to AB i.e., CE, be?



- 10 What can you infer on area and congruency from the figure below with overlapping triangles ?

