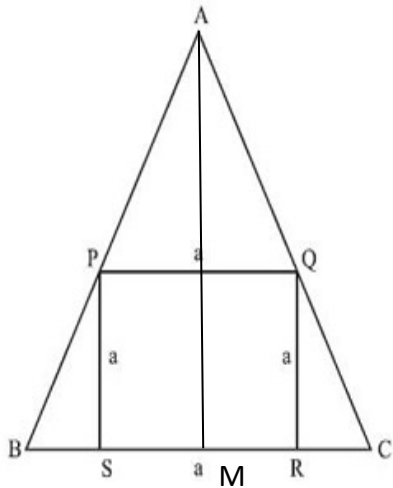


November 6th

An isosceles triangle has a base of 12cm and an area of 48cm^2 .

Find the area of the square that is inscribed in the triangle.



$AM = 8\text{cm}$ (using the fact that the area is 48cm^2)

$MC = 6\text{cm}$

so $AM = \frac{4}{3} MC$

Triangles QRC and AMC are similar with

$RC = 6 - \frac{1}{2} a$ and $QR = a$ and $QR = \frac{4}{3} RC$

Hence

$$a = 8 - \frac{2}{3} a$$

$$a = \frac{24}{5} = 4.8\text{cm}$$

Therefore **area = 23.04cm^2**