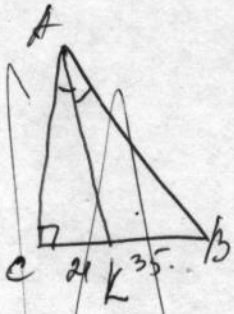


по свойству биссектрисы:

$\frac{CK}{AC} = \frac{BK}{AB} \Rightarrow \frac{AB}{AC} = \frac{BK}{CK} = \frac{35}{21} \Rightarrow AB = \frac{35AC}{21}$

по т. Пифагора

$AB^2 = AC^2 + BC^2 \Rightarrow BC^2 = AB^2 - AC^2 =$

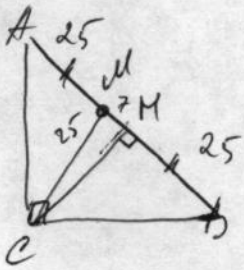
$= \frac{35^2}{21^2}AC^2 - AC^2 = \frac{(35^2 - 21^2)AC^2}{21^2} = \frac{(35-21)(35+21)AC^2}{21^2} =$

$= \frac{14 \cdot 56 \cdot AC^2}{7^2 \cdot 3^2} = \frac{7^2 \cdot 2 \cdot 8 \cdot AC^2}{7^2 \cdot 3^2} = \frac{16}{9}AC^2 \Rightarrow BC = \sqrt{\frac{16}{9}AC^2} = \frac{4}{3}AC. \Rightarrow$

$\Rightarrow \frac{35^2}{21^2}AC^2 = AC^2 + \frac{16}{9}AC^2 \Rightarrow \frac{(35^2 \cdot 3 - 63 - 16)AC^2}{63} = 0.$

$BC = 21 + 35 = 56 \Rightarrow AC = \frac{56 \cdot 3}{4} = 42$

$S = \frac{1}{2}AC \cdot BC = \frac{42 \cdot 56}{2} = 1176\ см^2$



$CM = CH + 1$

$\triangle CMH$ - прямоуг. по т. Пифагора

$CM^2 = MH^2 + CH^2$

$CH^2 + 2CH + 1 = 49 + CH^2$

$2CH = 48$

$CH = 24 \Rightarrow CM = 24 + 1 = 25$

$CM = \frac{1}{2}AB$ (по свойству мед. в прямоуг. $\triangle$-ке) $\Rightarrow AB = 50$

$BH = 25 - 7 = 18$

$\triangle CBH$ - прямоуг. по т. Пифагора:

$BC^2 = BH^2 + CH^2 = 324 + 576 = 900 \Rightarrow BC = 30$

$\triangle ABC$ - прямоуг. по т. Пифагора:

$AC^2 = AB^2 - BC^2 = 2500 - 900 = 1600 \Rightarrow AC = 40$

$P = 50 + 40 + 30 = 120\ см$