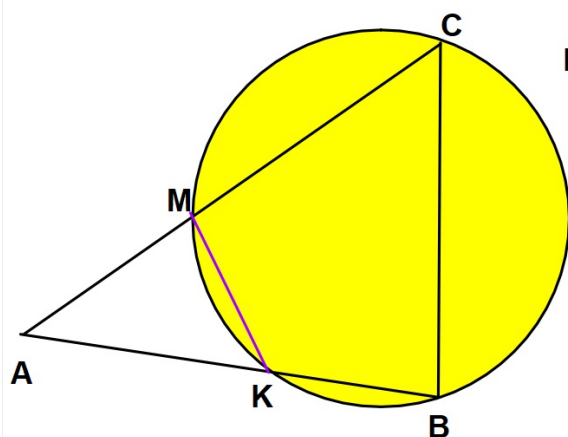




$AB=6$; $BC=12$; $AC=15$; $AK=3$ $MK=?$

По теореме косинусов

$$\begin{aligned} CB^2 &= AC^2 + AB^2 - 2AC \cdot AB \cdot \cos A \\ \Rightarrow 12^2 &= 15^2 + 6^2 - 2 \cdot 15 \cdot 6 \cdot \cos A \\ \Rightarrow \cos A &= (225 + 36 - 144) / 180 = 0.65 \end{aligned}$$

По свойству секущих:

$$AM \cdot AC = AK \cdot AB \Rightarrow AM \cdot 15 = 6 \cdot 3 \Rightarrow AM = 18 / 15 = 1.2$$

$\triangle AMK$: По теореме косинусов:

$$MK^2 = AM^2 + AK^2 - 2AM \cdot AK \cdot \cos A = 1.2^2 + 3^2 - 2 \cdot 1.2 \cdot 3 \cdot 0.65$$

$$MK^2 = 1.44 + 9 - 4.68 = 5.76$$

$$MK = 2.4$$