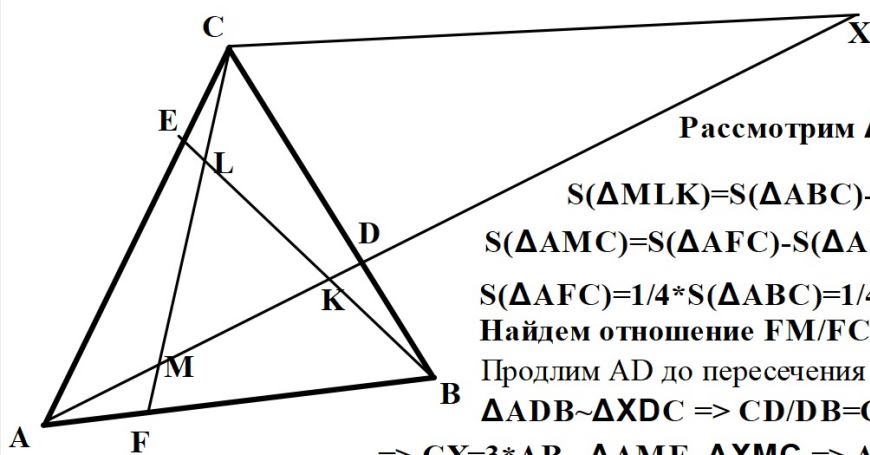




Рассмотрим $\triangle AMC$, $\triangle AKB$, $\triangle CLB$.

$$S(\triangle MLK) = S(\triangle ABC) - S(\triangle AMC) - S(\triangle AKB) - S(\triangle CLB)$$

$$S(\triangle AMC) = S(\triangle AFC) - S(\triangle AFM)$$

$$S(\triangle AFC) = 1/4 * S(\triangle ABC) = 1/4 \text{ (Так как } AF = 1/4 * AB)$$

Найдем отношение FM/FC

Продлим AD до пересечения с CX , где $CX \parallel AB$

$$\triangle ADB \sim \triangle XDC \Rightarrow CD/DB = CX/AB = 3/1 = 3$$

$$\Rightarrow CX = 3 * AB \quad \triangle AMF \sim \triangle XMC \Rightarrow AF/CX = FM/CM = 0.25AB/CX = 1/12$$

$$\Rightarrow FM/FC = 1/13 \Rightarrow S(\triangle AFM) = 1/13 * S(\triangle AFC) \Rightarrow S(\triangle AMC) = 12/13 * S(\triangle AFC) = 12/(13 * 4) = 3/13$$

Аналогично находим $S(\triangle AKB) = 3/13$ и $S(\triangle CLB) = 3/13$

$$\Rightarrow S(\triangle MLK) = 1 - 3/13 - 3/13 - 3/13 = 1 - 9/13 = 4/13$$

$$S(\triangle MLK) = 4/13$$