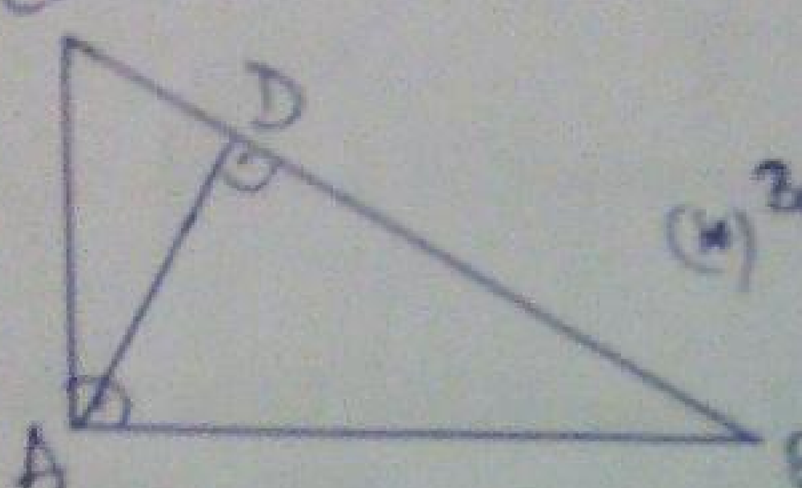
Ezekkel az összefüggésekkel úgy lehet dolgozni, hogy ha két szakaszt ismerünk a harmadikat ki lehet számítani. Pl:

1. ABC_Δ-ben $m(\hat{A})=90^\circ$, $AD \perp BC$, $BC=8$, $BD=6$
$AB, AD = ?$

M:



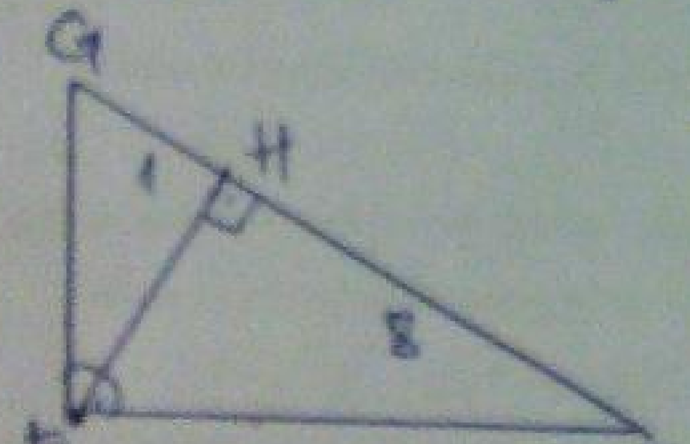
ABC_Δ-ben $m(\hat{A})=90^\circ$, $AD \perp BC$ (*)

$(*) \xRightarrow{\text{Bef.t.}} AB^2 = BD \cdot BC$
$AB^2 = 6 \cdot 8$
$AB = \sqrt{48} = 4\sqrt{3}$

$(*) \xRightarrow{\text{Mag.t.}} AD^2 = CD \cdot DB$
$AD^2 = (8-6) \cdot 6$
$AD = \sqrt{2 \cdot 6} = 2\sqrt{3}$

2) EFG_Δ-ben $m(\hat{E})=90^\circ$, $EH \perp GF$, $GH=1$, $HF=8$
$EH, EF, EG = ?$

M:



EFG_Δ-ben $m(\hat{E})=90^\circ$, $EH \perp GF \Rightarrow$
$\Rightarrow EF^2 = HF \cdot GF$
$EF^2 = 8 \cdot (8+1)$
$EF = \sqrt{8 \cdot 9} = 6\sqrt{2}$
$\Rightarrow EG^2 = GH \cdot GF$
$EG^2 = 1 \cdot (1+8)$
$EG = \sqrt{1 \cdot 9} = 3$
$\Rightarrow EH^2 = GH \cdot HF$
$EH^2 = 1 \cdot 8$
$EH = \sqrt{1 \cdot 8} = 2\sqrt{2}$

3). JIK_Δ-ben $m(\hat{I})=90^\circ$, $JI=12$, $LJ=9$, $IL \perp JK$
$JK, IK, LI = ?$

M: ?-ba

JIK_Δ-ben $m(\hat{I})=90^\circ$, $IL \perp JK \Rightarrow$
$\Rightarrow IJ^2 = LJ \cdot KJ$
$12^2 = 9 \cdot KJ$
$144 = 9 \cdot KJ \Rightarrow KJ = \frac{144}{9} = 16$