

**Sijoittajan laskentalomake - Aurinko, Kuu, planeetat, tähdet**

Havaittu taivaankappale		Merkintä- paikka	Lat $\varphi$	
			Lon $\lambda$	
$H_i =$	Päivä	klo <sub>i</sub> =	KrT <sub>i</sub> =	
ik =		klok =	krk =	
$H_h =$		→ ZT =	KrT =	
Dip =		zc =	+12h	
$H_a =$		→ UT =	UT =	
rk =	$\gamma$ GHA =	HP =		
HPK =	★SHA =	v =		
pk =	GHA <sub>t</sub> =	d =		
$\Delta R =$	k <sup>ms</sup> =	Dec <sub>t</sub> =		
Uk =	vk =	± dk =		
$H_t =$	GHA =	Dec =		
$H_L =$	± $\lambda =$	Lon $\lambda =$		
$\Delta H =$	LHA =	-15°		
kohti   pois	mpk	± 360°		
Zn =	LHA =	zc =		

Zn = z° kun LHA ≥ 180°  
 Zn = 360° - z° kun LHA < 180°

sin(H <sub>L</sub> ) =	
H <sub>L</sub> ° =	
cos(z) =	
z =	
z° =	

$$\sin(H_L) = (\sin \text{Lat}) \cdot (\sin \text{Dec}) + (\cos \text{Lat}) \cdot (\cos \text{Dec}) \cdot (\cos \text{LHA}) \quad \cos(z) = ((\sin \text{Dec}) - (\sin \text{Lat}) \cdot (\sin H_L)) / ((\cos \text{Lat}) \cdot (\cos H_L))$$

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