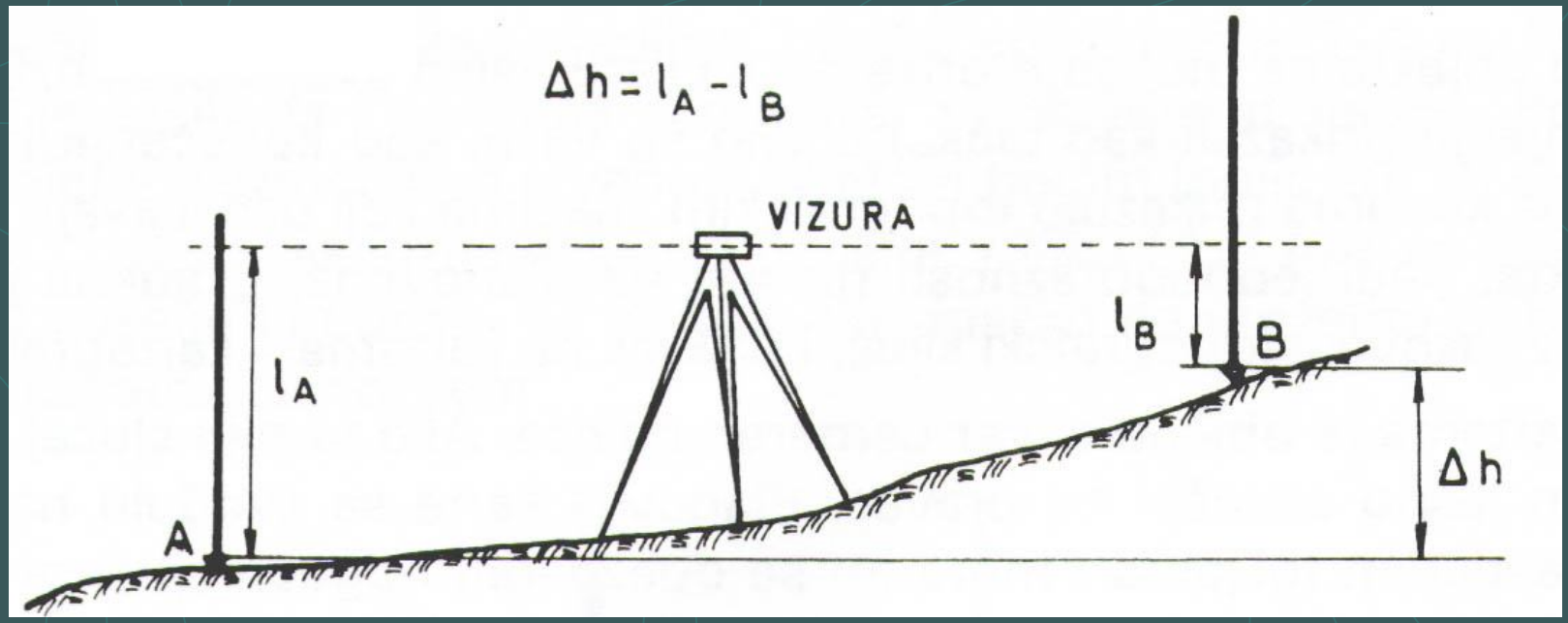
Merenje visinskih razlika geometrijskim nivelmanom



$$\Delta H = l_z - l_p = l_a - l_b$$

l_z – zadnja letva

l_p – prednja letva

Računanje visinskih razlika nivelmanske strane

stanica	vizura	d	l	Δh
1	R_{22}	25	0.852	l_z
			-	
	a	25	1.265	l_p =
2	a	38	2.352	
	b	38	1.035	
3	b	20	2.110	
	c	20	0.852	
4	c	25	1.562	
	893	25	2.036	

Visinska razlika jedne nivelmanske strane:

$$\Delta H_{R22-893} = \Delta H_1 + \Delta H_2 + \Delta H_3 + \Delta H_4$$

Analogno za ostale

$$\Delta H_{893-894} = \dots$$

$$\Delta H_{894-895} = \dots$$

$$\Delta H_{895-R23} = \dots$$

Računanje kota repera u nivelmanskom vlaku

T	d	Δh	H
R22			H_{R22}
	$\Sigma d_{22\text{-}893}$	$\Delta H_{R22\text{-}893}$	
893			
	...	...	
894			
	...	...	
895			
	...	....	
R23			H_{R23}
	Σd	$M = \Sigma \Delta H$	
		$T = H_Z - H_P$	
		$f_{\Delta H} = T - M$	

Računanje visinskog odstupanja

$$M = \sum \Delta H_i$$

$$T = H_Z - H_P = H_{R23} - H_{R22}$$

$$f_{\Delta h} = T - M$$

Računanje popravaka za visinske razlike

$$v_{\Delta h_i} = \frac{f_{\Delta h}}{\sum d} \cdot d_i$$

Zaokružiti na 3 decimale tako da zbir bude jednak $f_{\Delta h}$!!!

Računanje kota repera u nivelmanskom vlaku

T	d	Δh	H
R22		$v_{\Delta h1}$	H_{R22}
	$\Sigma d_{22\text{-}893}$	$\Delta H_{R22\text{-}893}$	
893		$v_{\Delta h2}$	
	...	...	
894		...	
	...	...	
895		...	
	...	....	
R23			H_{R23}
	Σd	$M = \Sigma\Delta H$	
		$T = H_Z - H_P$	
		$f_{\Delta H} = T - M$	

Računanje kota repera

$$H_{893} = H_{R22} + \Delta h_1 + v_{\Delta h_1}$$

$$H_{894} = H_{893} + \Delta h_2 + v_{\Delta h_2}$$

....

....

Kontrola računanja:

$$H_{R23} = H_{895} + \Delta h_4 + v_{\Delta h_4}$$

Računanje kota repera u nivelmanskom vlaku

T	d	Δh	H
R22		$v_{\Delta h1}$	H_{R22}
	$\Sigma d_{22\text{-}893}$	$\Delta H_{R22\text{-}893}$	
893		$v_{\Delta h2}$	H_{893}
	...	...	
894		...	H_{894}
	...	...	
895		...	H_{895}
	...	....	
R23			H_{R23}
	Σd	$M = \Sigma\Delta H$	
		$T = H_Z\text{-}H_P$	
		$f_{\Delta H} = T - M$	