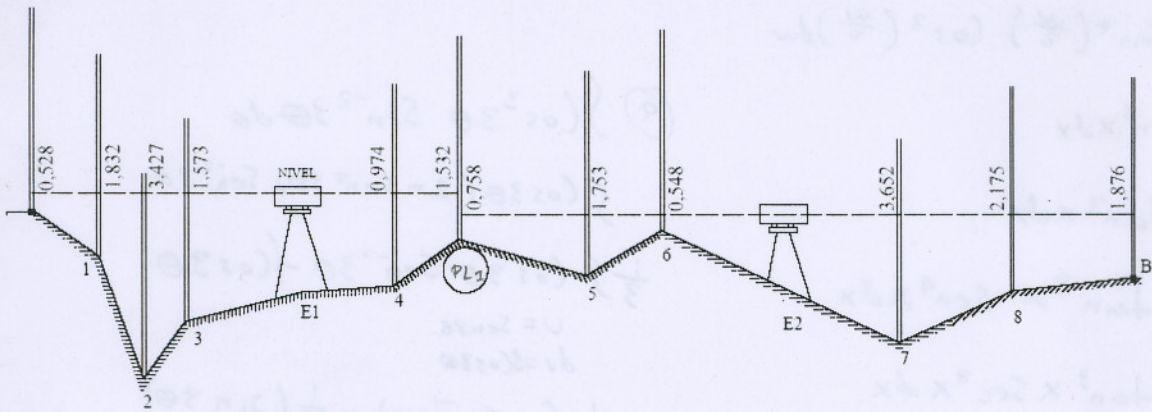


Nivelación de un perfil

Calcule las cotas de nivelación representadas en la siguiente figura:



BN-A

Elev. A=887.752

PV	LA	LD
BN <sub>A</sub>	0,528	—
1	—	1,832
	<hr/>	
	0,528	1,832
	<hr/>	
	1 = <u>886.448</u>	

PV	LA	LD
BN <sub>A</sub>	0,528	—
2	—	3,427
	<hr/>	
	2 = <u>884.853</u>	

PV	LA	LD
BN <sub>A</sub>	0,528	—
3	—	1,573
	<hr/>	
	3 = <u>886.707</u>	

PV	LA	LD
BN <sub>A</sub>	0,528	—
4	—	0,974
	<hr/>	
	4 = <u>887.306</u>	

PV	LA	LD
BN <sub>A</sub>	0,528	—
PL <sub>1</sub>	—	1,532
	<hr/>	
	PL <sub>2</sub> = <u>886.748</u>	

PV	LA	LD
PL <sub>2</sub>	0,758	—
5	—	1,753
	<hr/>	
	5 = <u>885.753</u>	

PV	LA	LD
PL <sub>1</sub>	0,758	—
6	—	0,548
	<hr/>	
	6 = <u>886.958</u>	

PV	LA	LD
PL <sub>1</sub>	0,758	—
7	—	3,652
	<hr/>	
	7 = <u>883.854</u>	

PV	LA	LD
PL <sub>1</sub>	0,758	—
8	—	2,175
	<hr/>	
	8 = <u>885.331</u>	

PV	LA	LD
BN <sub>A</sub>	0,528	—
PL <sub>2</sub>	0,758	1,532
BN <sub>B</sub>	—	1,876
	<hr/>	
	BN <sub>B</sub> = <u>885.63</u>	

3, 9, 15, 19, 21, 25, 27

$$(3) \int \sin^3 x dx \Rightarrow \int \sin x (1 - \cos^2 x) dx$$

$$(9) \int (\cos^3 3\theta \sin^{-2} 3\theta) d\theta$$

$$\int \sin x - \int \cos^2 x \sin x dx$$

$$-\cos x + \frac{\cos^3 x}{3} + C$$

$$(15) \int \sin^4\left(\frac{w}{2}\right) \cos^2\left(\frac{w}{2}\right) dw$$

$$(19) \int \tan^4 x dx$$

$$(9) \int \cos^3 3\theta \sin^{-2} 3\theta d\theta$$

$$(21) \int \tan^3 x dx$$

$$\int \cos 3\theta (1 - \sin^2 3\theta) \sin^2 3\theta$$

$$(25) \int \tan^3 x \sec^4 x dx$$

$$\frac{1}{3} \int \cos 3\theta \sin^2 3\theta - \int \cos 3\theta$$

$$(27) \int \tan^3 x \sec^2 x dx$$

$$u = \sin 3\theta$$

$$du = 3 \cos 3\theta$$

$$\frac{1}{3} (-\sin^{-1} 3\theta) - \frac{1}{3} (\sin 3\theta)$$

$$-\frac{1}{3 \sin 3\theta} - \frac{\sin 3\theta}{3}$$

$$-\frac{\csc 3\theta}{3} - \frac{\sin 3\theta}{3}$$

$$(15) \int \sin^4\left(\frac{w}{2}\right) \cos^2\left(\frac{w}{2}\right) dw$$

$$\int \left(\frac{1 - \cos w}{2}\right)^2 \left(\frac{1 + \cos w}{2}\right) dw$$

$$\int \left[\frac{(1 - \cos w)^2}{4}\right] \left(\frac{1 + \cos w}{2}\right)$$

$$\frac{1}{8} \int (1 - 2\cos w + \cos^2 w) (1 + \cos w) dw$$

$$\frac{1}{8} \int (1 + \cos w - 2\cos w - 2\cos^2 w + \cos^2 w + \cos^3 w) dw$$

$$\frac{1}{8} \int 1 - \cos w - \cos^2 w + \cos^3 w dw$$

$$\frac{1}{8} \int 1 - \cos w - \left(\frac{1 + \cos 2w}{2}\right) + (1 - \sin^2 w)(\cos w) dw$$

$$\frac{1}{8} \int 1 - \cos w - \frac{1}{2} + \frac{\cos 2w}{2} + \cos w - \left(\frac{1 - \cos 2w}{2}\right) (\cos w)$$

$$\frac{1}{8} \int$$