

## 11. BROJNI PRIMERI

### PRIMER br. 1

Rešiti trougao, ako je dato

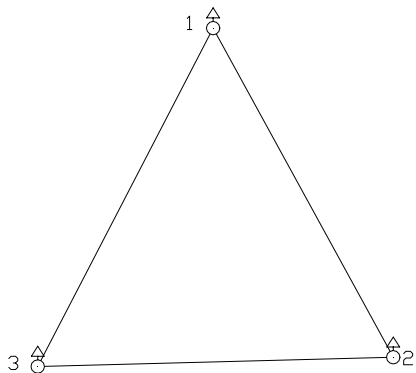
a) opažani pravaci

st.	viz.	red.sr.
1	2	0 00 00
	3	65 59 06
2	1	0 00 00
	3	301 17 06

b) redukovana dužina

$$d_{1-2} = 198,21 \text{ m}$$

c) skica



### PRIMER br. 2

Rešiti trougao, ako je dato

a) opažani pravaci

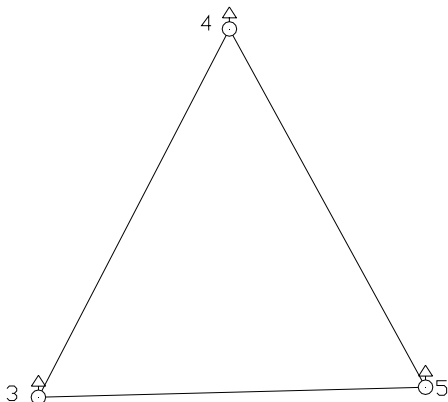
st.	viz.	red.sr.
4	5	0 00 00
	3	65 39 36

b) redukovane dužine

$$d_{5-4} = 198,21 \text{ m}$$

$$d_{3-4} = 192,46 \text{ m}$$

c) skica



### PRIMER br. 3

Izračunati direkzione uglove  $v_{11}^{14}$  i  $v_{28}^{19}$ , kao i dužine ako je dato:

$$\begin{array}{ll} y_{14} = 12163,95 & x_{14} = 23990,92 \\ y_{11} = 10230,80 & x_{11} = 22679,88 \end{array}$$

$$\begin{array}{ll} y_{19} = 58398,01 & x_{19} = 59512,39 \\ y_{28} = 59079,15 & x_{28} = 60475,58 \end{array}$$

Rešenje:

$$\begin{array}{ll} v_{11}^{14} = 55^{\circ} 51' 19'' & v_{28}^{19} = 215^{\circ} 16' 01'' \\ d_{11-14} = 2335,78 \text{ m} & d_{11-14} = 1179,69 \text{ m} \end{array}$$

### PRIMER br. 4

Izračunati direkzione uglove  $v_{24}^{28}$  i  $v_{19}^{30}$ , kao i dužine ako je dato:

$$\begin{array}{ll} y_{28} = 59079,15 & x_{28} = 60475,58 \\ y_{24} = 58238,60 & x_{24} = 60965,32 \end{array}$$

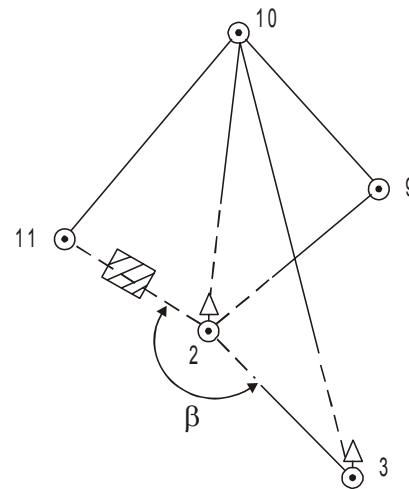
$$\begin{array}{ll} y_{30} = 57145,55 & x_{30} = 60254,25 \\ y_{19} = 58398,01 & x_{19} = 59512,39 \end{array}$$

### PRIMER br. 5

Izračunati ugao  $\beta$  ako je dato:

a) opažani pravci

st.	viz.	red.sr.
9	10	0 00 00
	8	298 59 06
10	3	0 00 00
	2	3 13 42
	11	65 25 12
	9	301 17 06



b) redukovane dužine  $d_{9-10} = 198,21 \text{ m}$   
 $d_{10-11} = 229,10 \text{ m}$

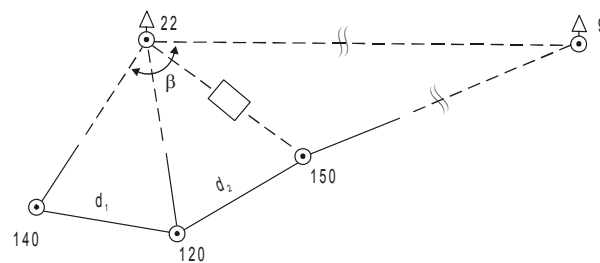
c) data dužina  $d_{2-3} = 1793,14 \text{ m}$

**PRIMER br. 6**

Izračunati ugao  $\beta$  ako je dato:

a) opažani pravci

st.	viz.	red.sr.
120	22	0 00 00
	150	46 20 17
	140	284 20 13
140	120	0 00 00
	22	306 12 20
150	9	0 01 13
	120	160 34 12



b) redukovane dužine  $d_{140-120} = 282,32 \text{ m}$   
 $d_{120-150} = 213,28 \text{ m}$

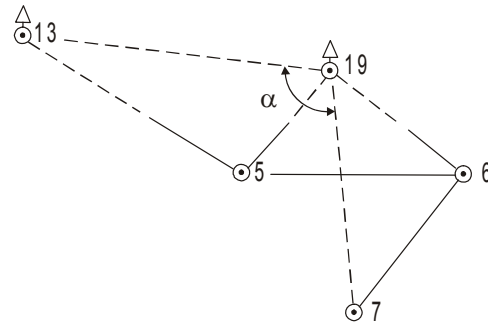
c) data dužina  $d_{22-9} = 1484,22 \text{ m}$

**PRIMER br. 7**

Izračunati ugao  $\alpha$  ako je dato:

a) opažani pravci

st.	viz.	red.sr.
15	13	0 00 00
	19	77 09 00
	6	151 12 08
6	7	0 00 00
	5	15 00 15
	19	76 49 37



b) redukovane dužine  $d_{5-6} = 249,16 \text{ m}$   
 $d_{6-7} = 109,06 \text{ m}$

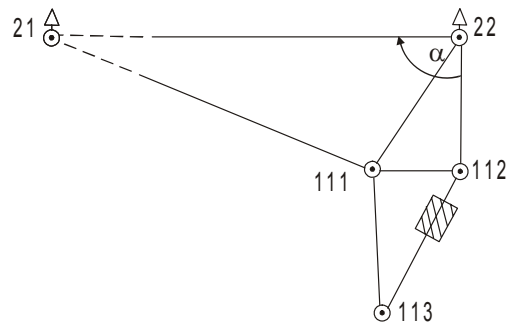
c) data dužina  $d_{13-19} = 887,90 \text{ m}$

**PRIMER br. 8**

Izračunati ugao  $\alpha$  ako je dato:

a) opažani pravci

st.	viz.	red.sr.
112	22	10 00 00
	111	302 16 20
111	22	27 24 18
	112	76 30 30
	113	120 17 17
	21	274 18 30



b) redukovane dužine  $d_{111-112} = 264,12 \text{ m}$   
 $d_{111-113} = 326,22 \text{ m}$

v) data dužina  $d_{21-22} = 4423,73 \text{ m}$

**PRIMER br. 9**

Detaljni nivelman od R11 do R12

Stanica	Vizura	Odstojanje u metrima	Čitanje na letvi	Visinska razlika	Nadmorska visina vizure	Nadmorska visina
1	2	3	4	5	6	7
1	R11	10	0 6 8 5	+ 1		9 6, 5 3 8
	a	10	1 4 9 6	- 8 1 1		9 5, 7 2 8
2	a	95	1 7 2 9	+ 8		
	b	95	1 5 3 6	+ 1 9 3	9 7, 4 6	9 5, 9 2 9
	1		1 4 2			9 6, 0 4
	2		1 6 9			9 5, 7 7
	3		0 8 0			9 6, 6 6
	4		1 3 5			9 6, 1 1
	5		1 1 7			9 6, 2 9
	6		1 5 6			9 5, 9 0
	7		0 9 0			9 6, 5 6
	8		2 1 7			9 5, 2 9
	b		(1 5 3 8)			
			11 0 6			6 8, 6 2
3	b	60	2 3 5 6	+ 5		9 5, 9 2 9
	c	60	0 9 8 5	+ 1 3 7 1	9 8, 2 9	9 7, 3 0 5
	9		1 6 1			9 6, 6 8
	10		1 0 2			9 7, 2 7
	11		1 4 5			9 6, 8 4
	12		1 6 8			9 6, 6 1
	c		(0 9 8 6)			
			5 7 6			8 7, 4 0
4	c	50	1 2 8 2	+ 4		9 7, 3 0 5
	R12	50	1 1 4 2	+ 1 4 0		9 7, 4 4 9
		430	6 0 5 2	+ 8 9 3		+ 9 1 1
			5 1 5 9			
			+ 8 9 3			
	Treba		+ 9 1 1			
	f <sub>b</sub> =		+ 1 8	(Δ = 24 m m)		

Nivelmanski obrazac br. 1 Str.

Proba	Situacija
8	9
H <sub>v</sub> ' = H <sub>a</sub> + I <sub>a</sub>	= 95,728 <u>1,729</u> 97,457
H <sub>v</sub> " = H <sub>b</sub> + I <sub>b</sub>	= 95,929 <u>1,536</u> 97,465
H <sub>v</sub> ' = H <sub>b</sub> + I <sub>b</sub>	= 95,929 <u>2,356</u> 98,285
H <sub>v</sub> " = H <sub>c</sub> + I <sub>c</sub>	= 97,305 <u>0,985</u> 98,290

**PRIMER br. 10**

Detaljni nivelman od R11 do R12

Stanica	Vizura	Odstojanje e Hm	Odsečak na letvi mm l	Visinska razlika mm Δh	Kota vizure Hv = H+1	Visina nad Jadranskim morem m H = Hv -1
1	2	3	4	5	6	7
1	R22	49	0 6 3 6			9 9, 0 0 2
	a	49	1 4 0 7			
2	a	45	1 6 2 8			
	b	45	1 0 8 7			
	1		1 4 4			
	2		1 2 3			
	3		1 5 6			
	4		0 9 8			
	5		1 1 0			
	6		0 7 9			
	b		(1 5 0 2)			
3	b	55	0 8 2 6			
	R23	55	1 6 3 8			9 7, 9 5 1
p  -  z  = =  Δh						

Nivelmanski obrazac br. 1 Str.

Proba	
8	9
[H]=nHv-[li]	

**PRIMER br. 11**

Izračunati koordinate detaljnih tačaka, snimljenih polarnom metodom, ako je dato:

a) koordinate

$$\begin{array}{ll} y_{115} = 10000 & x_{115} = 10000 \\ y_{114} = 11233,05 & x_{114} = 14111,11 \end{array}$$

b) polarni uglovi i dužine

$$\begin{array}{ll} d_{115-1} = 117,2 \text{ m} & \alpha_1 = 27^{\circ} \\ d_{115-2} = 164,4 \text{ m} & \alpha_2 = 59^{\circ} \\ d_{115-3} = 199,9 \text{ m} & \alpha_3 = 117^{\circ} \end{array}$$

c) skica

