
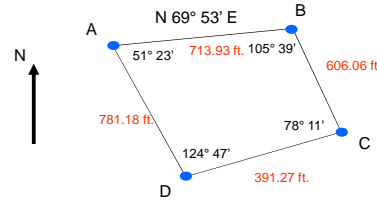


### Surveying - Traverse




#### Group Example Problem 3

➤ In the survey of your assign site in Project #3, you will have to balance data collected in the following form:

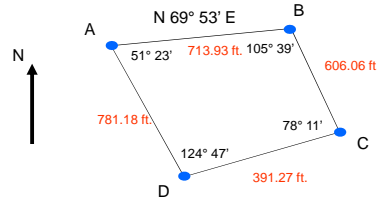


### Surveying - Traverse




#### Group Example Problem 3

➤ The first step is to compute the bearings for each side.

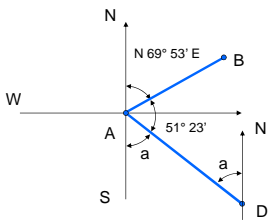


### Surveying - Traverse




#### Group Example Problem 3

➤ Find the bearing of side DA:



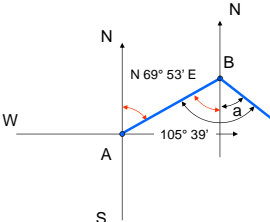
$a = 180^\circ - 69^\circ 53' - 51^\circ 23'$   
 $a = 58^\circ 44'$   
DA = N 58° 44' W

### Surveying - Traverse




#### Group Example Problem 3

➤ Find the bearing of side BC:



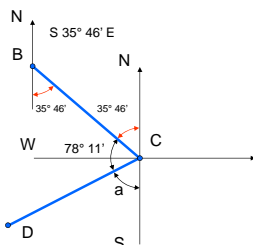
$a = 105^\circ 39' - 69^\circ 53'$   
 $a = 35^\circ 46'$   
BC = S 35° 46' E

### Surveying - Traverse




#### Group Example Problem 3

➤ Find the bearing of side CD:



$a = 180^\circ - 78^\circ 11' - 35^\circ 46'$   
 $a = 66^\circ 03'$   
CD = S 66° 03' W

### Surveying - Traverse



#### Group Example Problem 3

➤ In the survey of your assign site in Project #3, you will have to balance data collected in the following form:

Side	Bearing degree-minutes	Length (ft)	Latitude	Departure	Corrections		Balanced	
					Latitude	Departure	Latitude	Departure
AB	N 69 53 E	713.93						
BC	S 35 46 E	606.06						
CD	S 66 03 W	391.27						
DA	N 58 44 W	781.18						

## Surveying - Traverse



### Group Example Problem 3

➤ In the survey of your assign site in Project #3, you will have to balance data collected in the following form:

Side	Bearing degree minutes	Length (ft.)	Latitude	Departure	Corrections		Balanced	
					Latitude	Departure	Latitude	Departure
AB	N 62 53 E	713.33	245.544	670.376	-0.115	0.199	245.429	670.575
BC	S 35 46 E	606.06	-491.760	354.233	-0.098	0.169	-491.857	354.402
CD	S 66 3 W	391.27	-158.832	-357.582	-0.063	0.109	-158.895	-357.473
DA	N 58 44 W	781.18	405.450	-667.722	-0.126	0.218	405.323	-667.505
2492.44			0.402	-0.694			0.000	0.000

$E_{closure} = 0.802 \text{ ft.}$

Precision =  $\frac{1}{3.107}$

## Surveying - Traverse



### Group Example Problem 3

# Questions?