

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 NATIONAL PARK SERVICE  
 HORACE M. ALBRIGHT TRAINING CENTER  
 Grand Canyon, Arizona

P&VP-63

COMPASS AND PACING PROBLEMS

Problem #1      200-foot level pacing course

Objective: To determine your average pace on level ground.

Problem #2      200-foot uphill-downhill pacing course

Objective: To determine length of your pace on uneven ground.

Problem #3      Short triangular compass course

Objective: To learn how to operate a Sylva compass when bearings and distance are known; and to practice pacing.

<u>Bearings</u>	<u>Distance</u>	<u>Target</u>
333°	<del>393'</del> 461'	Tagged tree
<del>218°</del>	<del>155'</del> 197'	"    "
<del>128°</del>	<del>340'</del> 320'	Starting point

Problem #4      Longer triangular compass course

Objective: To learn how to operate a Sylva compass when bearings and distance are unknown; and to practice pacing.

<u>Bearings</u>	<u>Distance</u>	<u>Target</u>
○	'	Tagged tree
○	'	"    "
○	'	Starting point

Targets will be pointed out to class on the ground. Bearings and distances of each man will be compared at conclusion of course to surveyed bearings and taped distances.

Problem #5 Irregular compass course of approximately 1/2 mile

Objective: To review all procedures of previous problems.

OPTION A

<u>Bearing</u>	<u>Distance</u>
197°	1400'
74°	400'
2°	400'
11°	210'
333°	400'
348°	460'
°	'

OPTION B

<u>Bearing</u>	<u>Distance</u>
197°	1400'
60°	600'
320°	300'
290°	600'
48°	700'
325°	400'
°	'

OPTION C

<u>Bearing</u>	<u>Distance</u>
197°	1400'
320°	400'
45°	600'
30°	400'
300°	400'
45°	300'
°	'

OPTION D

<u>Bearing</u>	<u>Distance</u>
197°	1400'
345°	600'
60°	700'
295°	400'
40°	400'
320°	200'
°	'

This will be a team problem. Two trainees will make up each team. One man can act as a front target, pacing as he goes. The rear man will keep him on course and will then pace up to the front man, thus checking the paced distances.

Backsights may be necessary from time to time. Trainees may alternate the front and rear positions as they wish.

When each team completes the last given bearing and distance, the two men will take a bearing and pace the distance to the starting point. Upon arrival there, give your closing bearing and distance to the instructor.

Then, each man get a sheet of cross section paper. With your ruler, protractor and sharp pencil, plot the course you have just run. Top of the paper will be NORTH. Scale will be one inch to 200'. The starting point will be two squares down and three squares in from the right margin.

When you have plotted the last given bearing and distance, plot a bearing on the starting point and measure the distance. Give the last bearing and distance to the instructor. Then, compare this with your first bearing to see how far off you were in your compass work and pacing.