

Orienteering

Beginner's Training



Beginner's Clinic Outline

- Introduction
 - Scope, land navigation, basic concepts.
- Map Features
 - Magnetic North lines, orienting the map.
 - Contour lines, intervals.
 - Waterways, streams, etc. (blue)
 - Roads, vehicle tracks, footpaths, etc.
 - Fences
 - Legend (find feature symbols listed in legend)
- Contours/Land Features (demo w/ whiteboard and map)
 - Hills, saddles, bowls, depressions, etc.
 - Ridges, cliffs.
 - Spurs, re-entrants
 - Use fist to demo features (knuckles = hilltops, ridgeline: between knuckles = saddle: 1st joints = spurs: between 1st joints = re-entrants)
- Navigation
 - Orient yourself: get your direction/bearing from point A to point B.
 - Use land features, trails, etc.
 - Handrails, catching features, check point/check line, etc.
 - Pace count, scale, etc.
 - Trick: mark scale on edge of control card and use to find distance on map.
- The Course
 - Control points on map, order of visitation.
 - Control codes on card.
 - Control bags and punches.
 - Navigate examples.
- Safety
 - Obstacles and hazards.
 - Safety bearing
 - Whistle, calling for help.

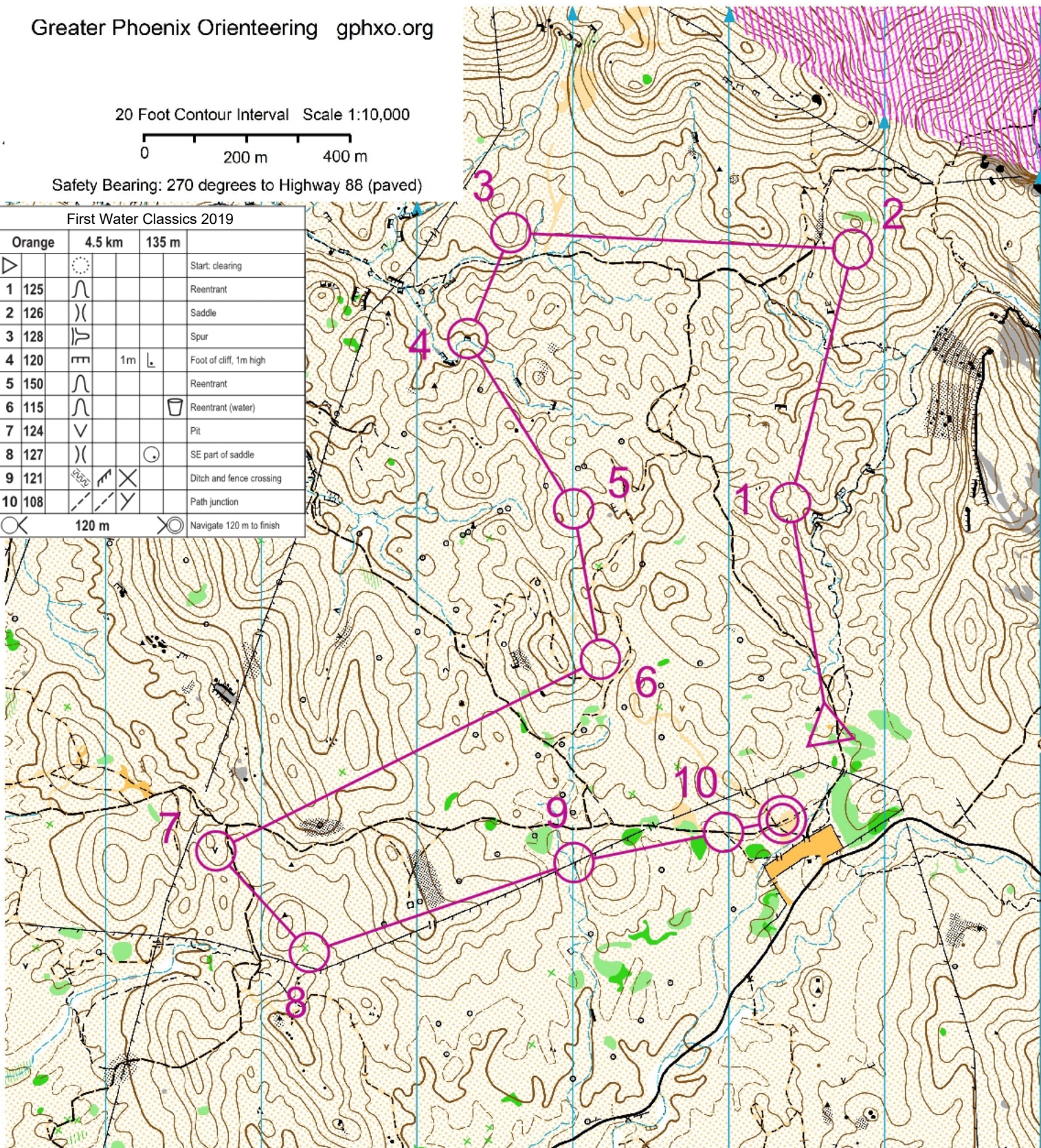
20 Foot Contour Interval Scale 1:10,000

0 200 m 400 m

Safety Bearing: 270 degrees to Highway 88 (paved)

First Water Classics 2019

Orange	4.5 km	135 m	
Start: clearing			
1 125			Reentrant
2 126			Saddle
3 128			Spur
4 120	1m		Foot of cliff, 1m high
5 150			Reentrant
6 115			Reentrant (water)
7 124			Pit
8 127			SE part of saddle
9 121			Ditch and fence crossing
10 108			Path junction
120 m			Navigate 120 m to finish



First Water - Feb 24, 2019

- Contour lines
- Index contour
- Form Lines
- Earth banks, Earth wall
- Small gully, ditch, or re-entrant
- Knolls (round, elongated), Pit
- Cliffs, Rock pillar
- Rock faces
- Stony ground (slow, walk)
- Boulders, Boulder cluster
- Boulder group

- Open sandy ground
- Bare Rock
- Water channel / seasonal stream
- Open area
- Rough open land
- Rough semi-open land (scattered trees)
- Cholla cactus (slow, walk)
- Vegetation - impassable
- Undergrowth (slow, walk)
- Cactus patch, prominent Saguaro cactus

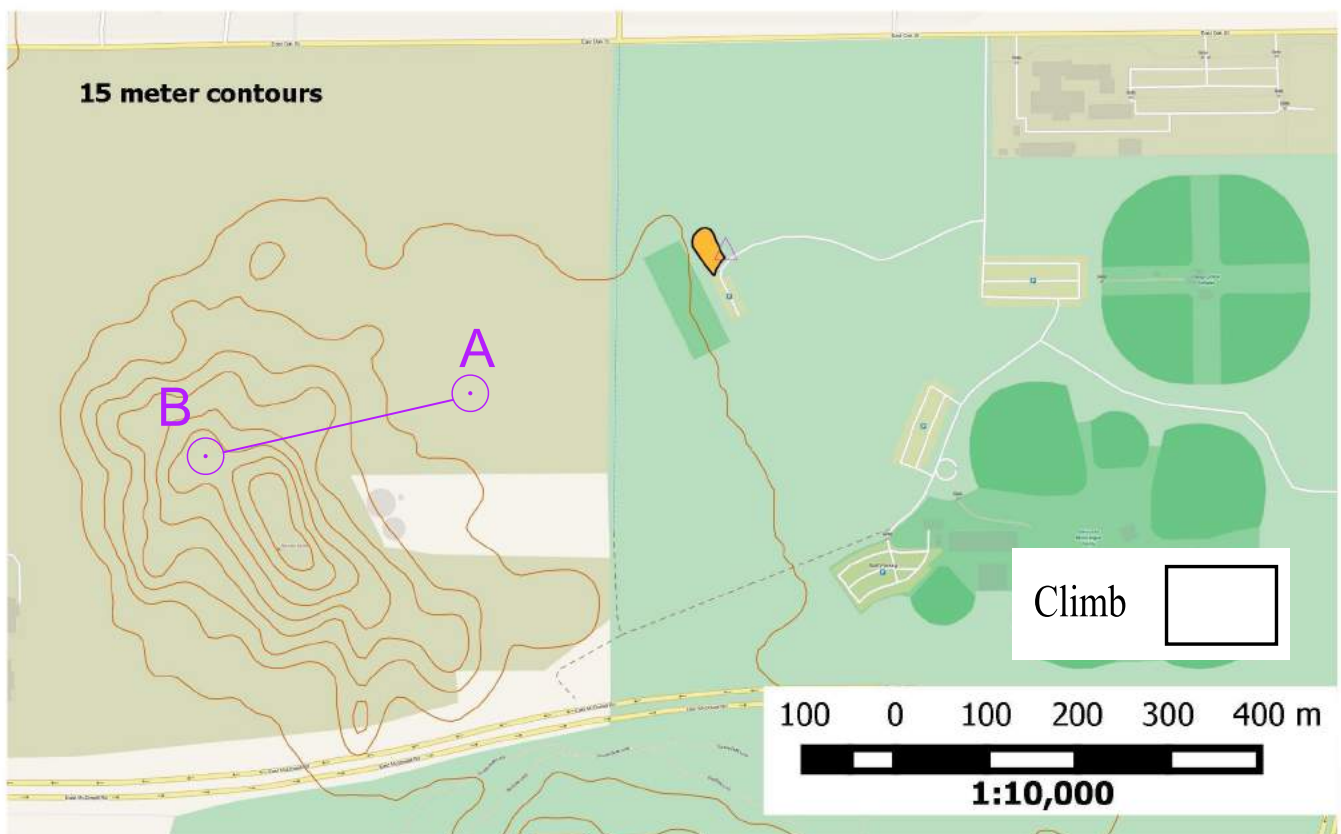
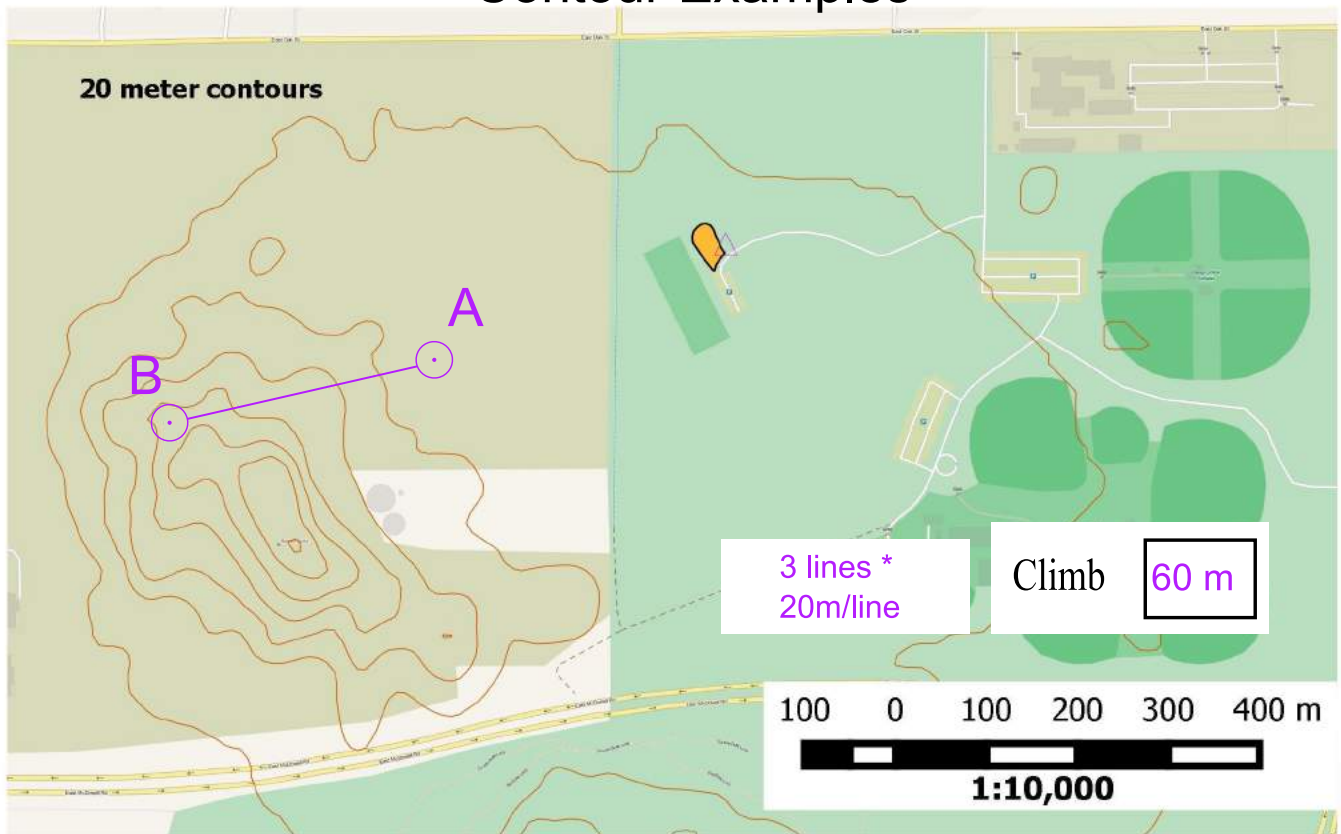
- Roads (paved, gravel, active jeep trail)
- Old jeep roads (active trail, visible grade, indistinct)
- Trails (footpath, indistinct)
- Power line, Ruined wall
- Paved area, Grave
- Fence, Ruined fence
- Crossing Point
- Building (large, small)
- Ruin (large, small)
- Rock pile, Cairn, or Monument
- Rocky pit (mine), Cave, Man-made feature
- Out-of-bounds area

North

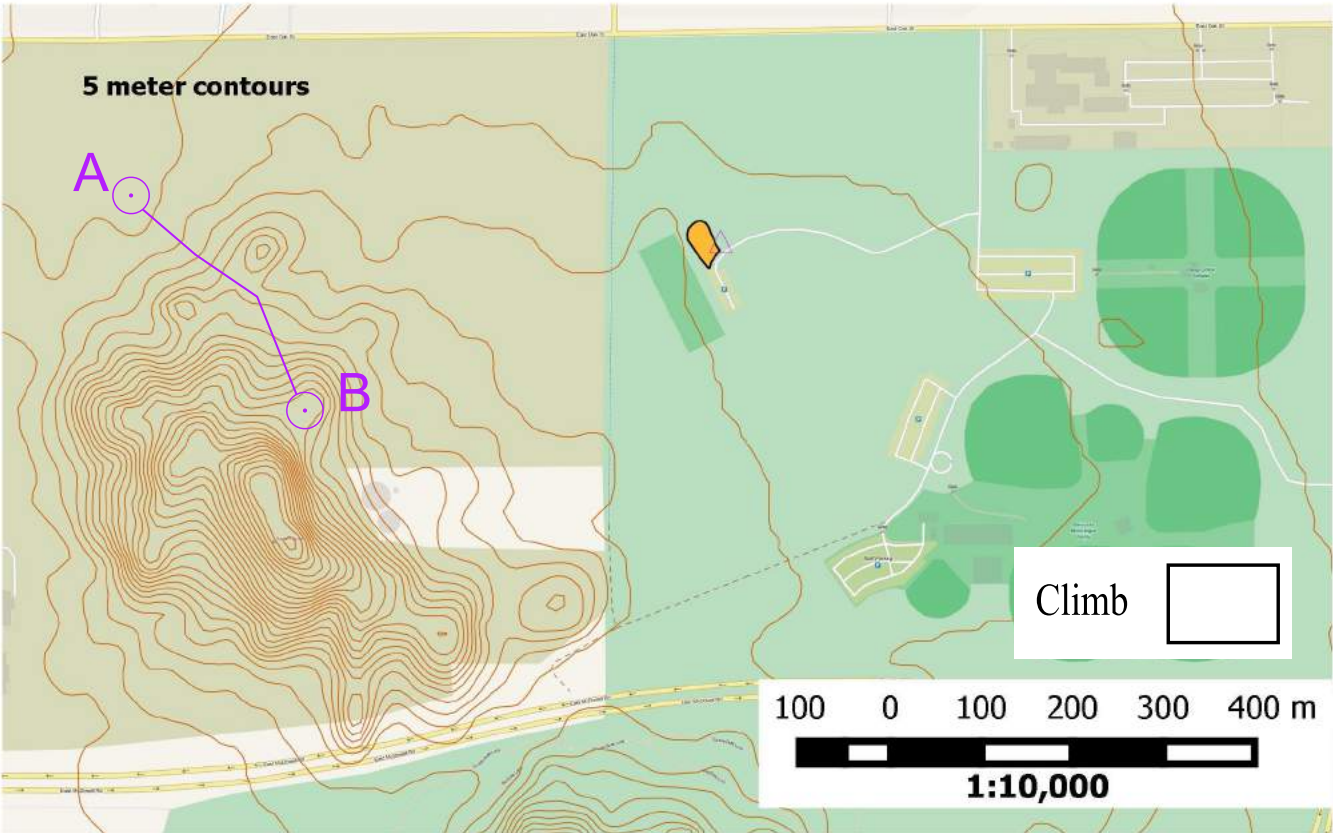
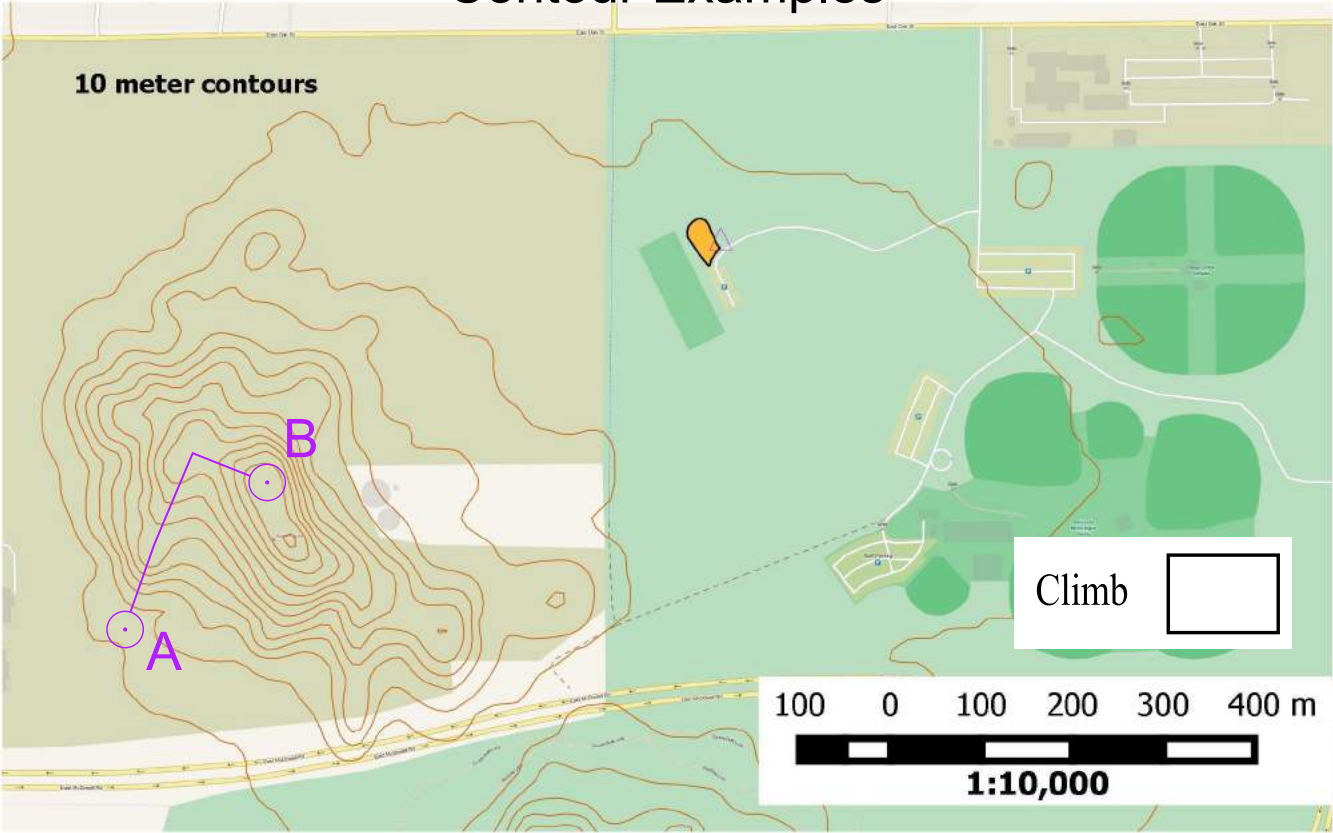
Entry Name: _____	Start Time: ____ : ____ : ____	End Time: ____ : ____ : ____	18.5 km
Points: _____ - _____ = Total Points _____	Elapsed Time: ____ : ____ : ____		550 m

[illegible]

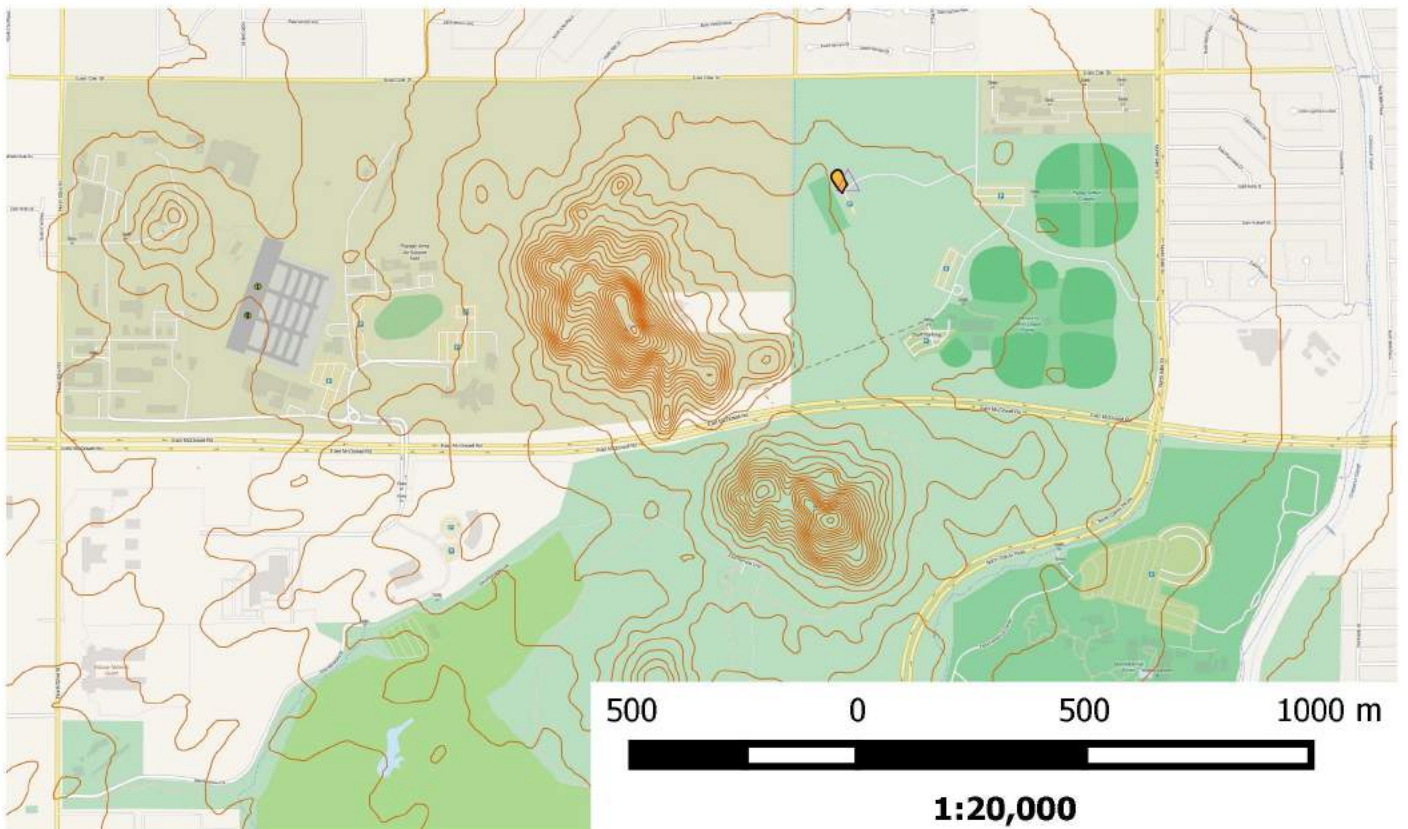
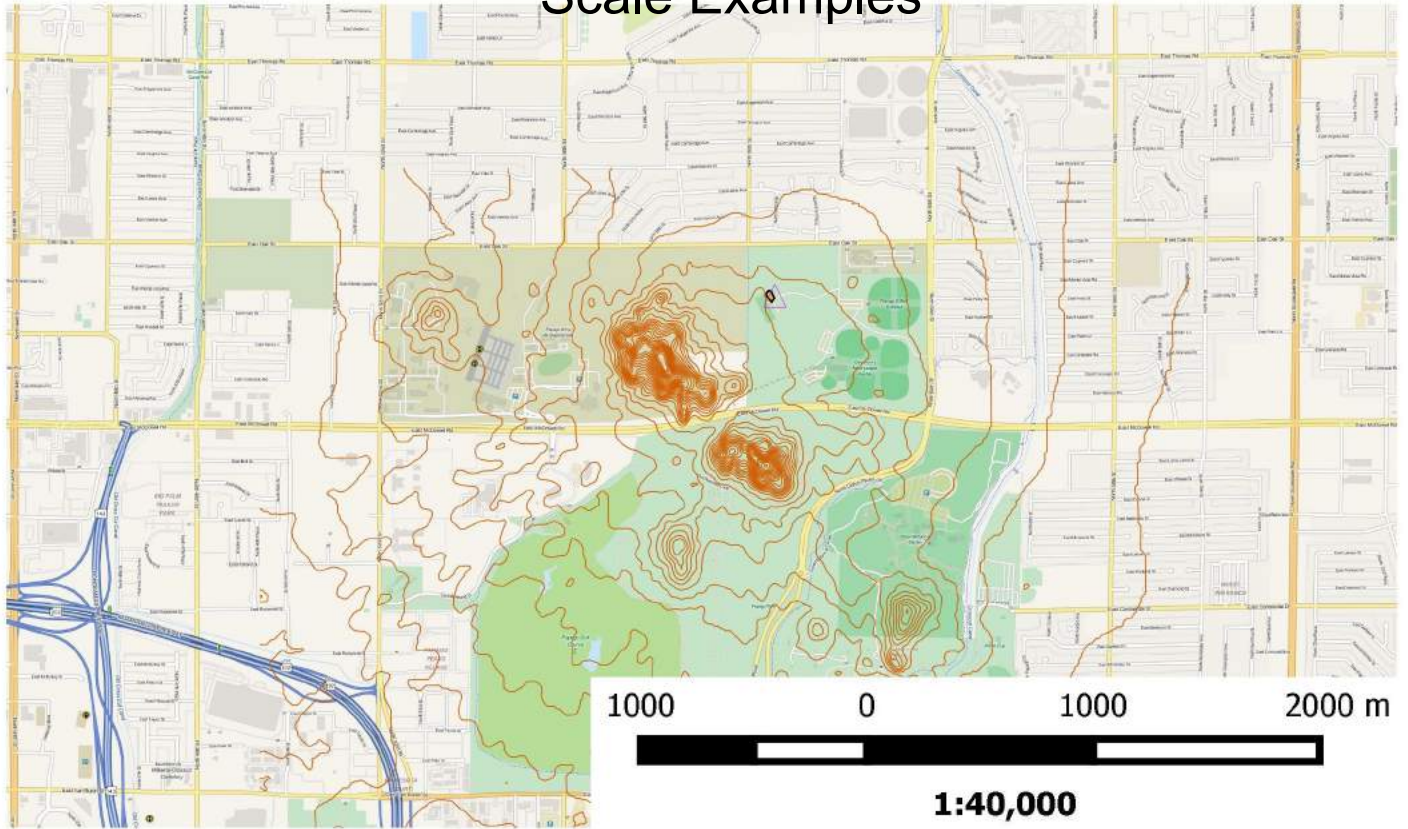
Contour Examples



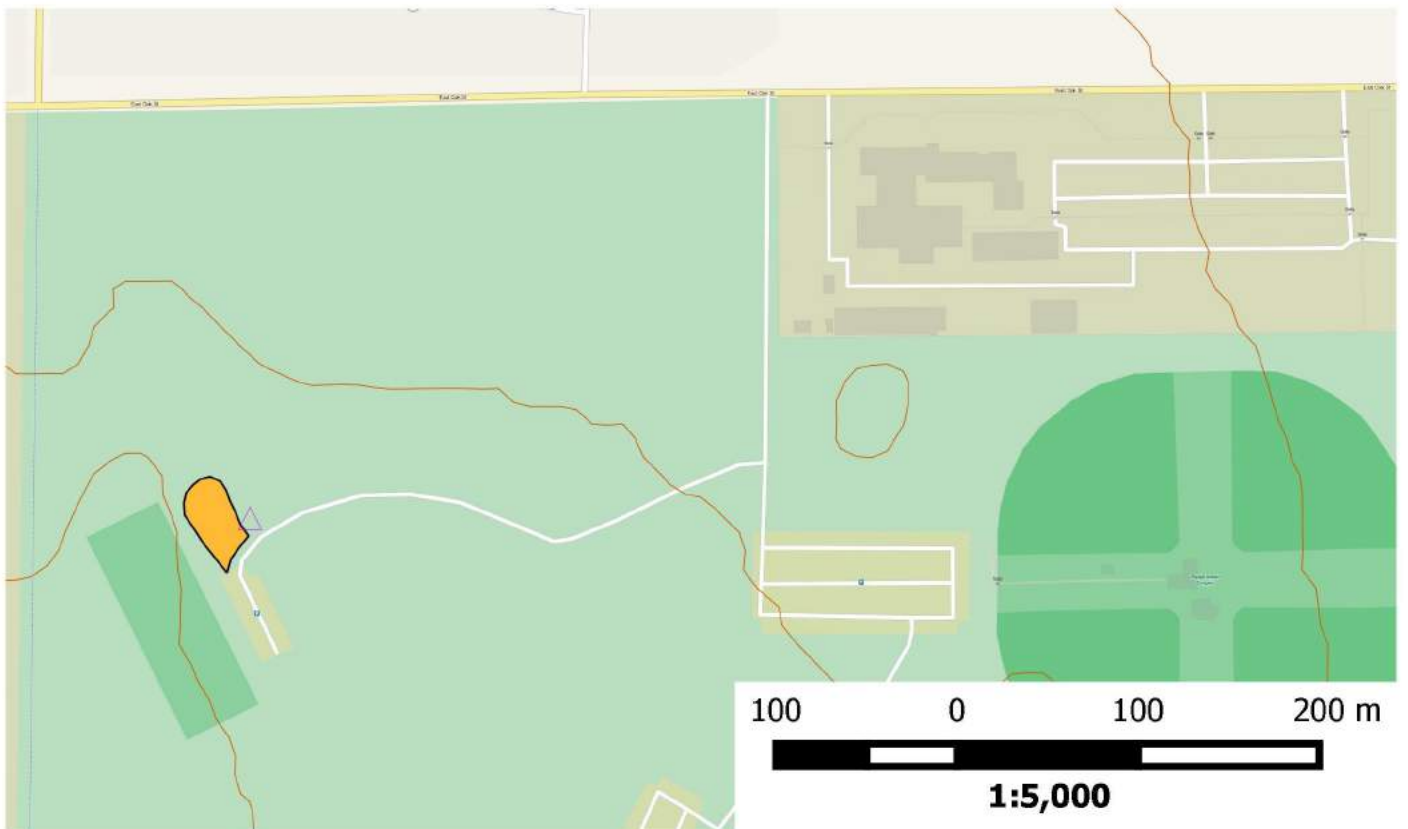
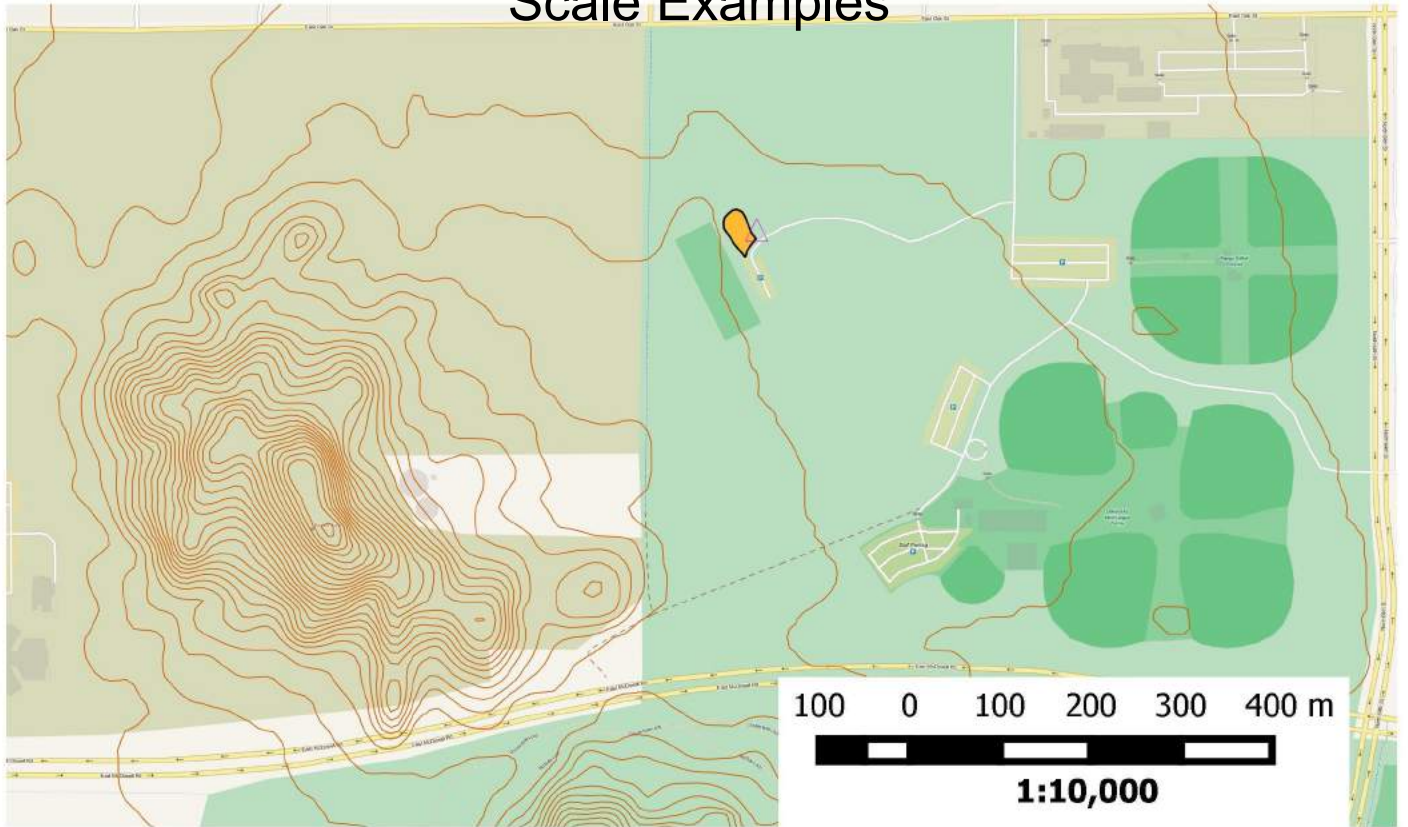
Contour Examples



Scale Examples



Scale Examples

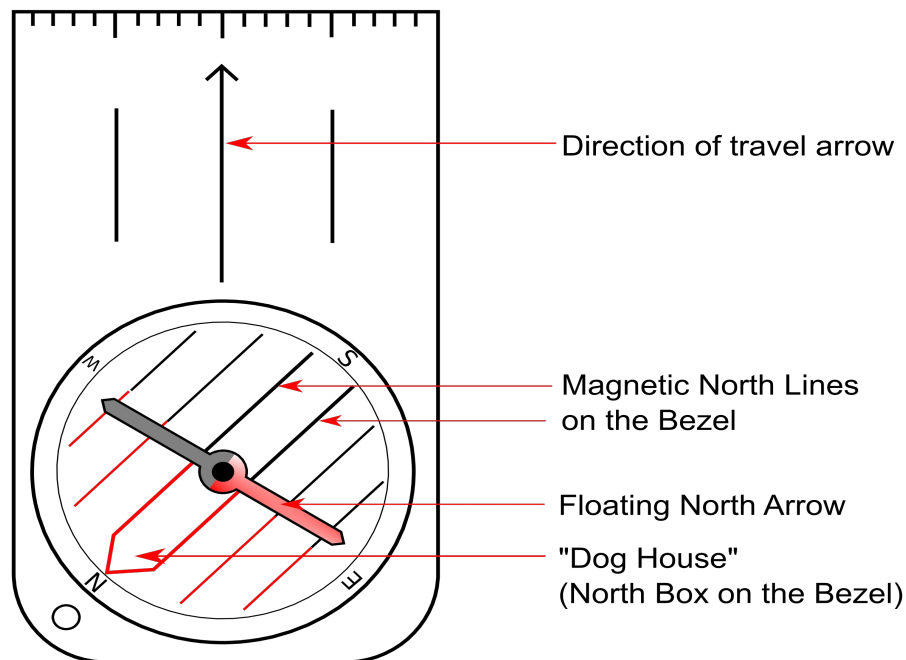


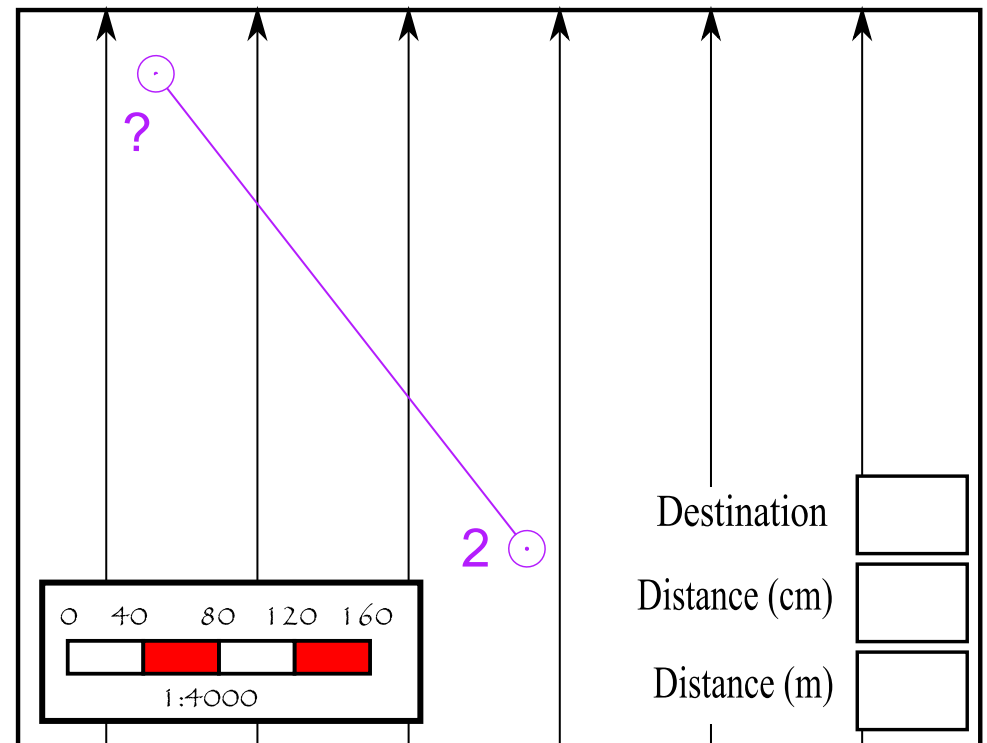
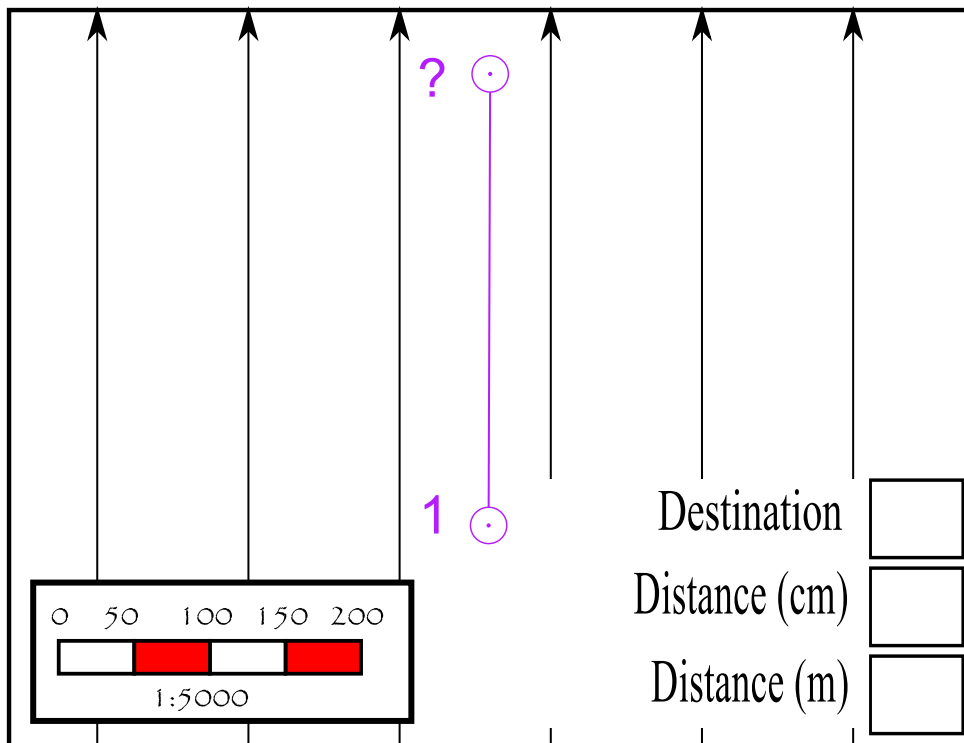
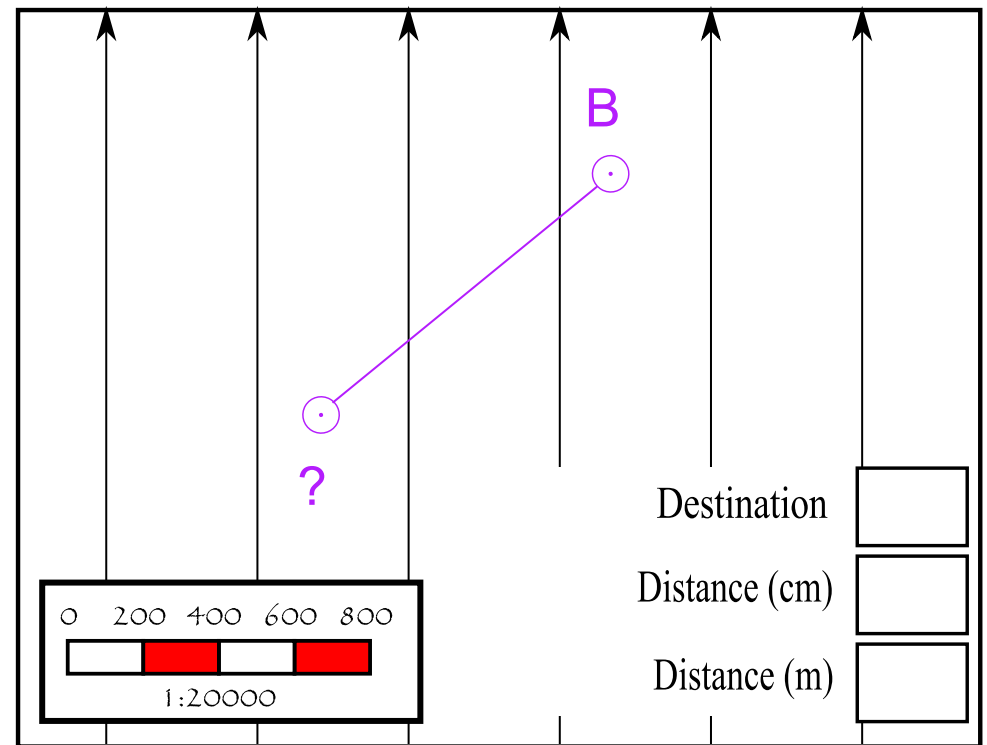
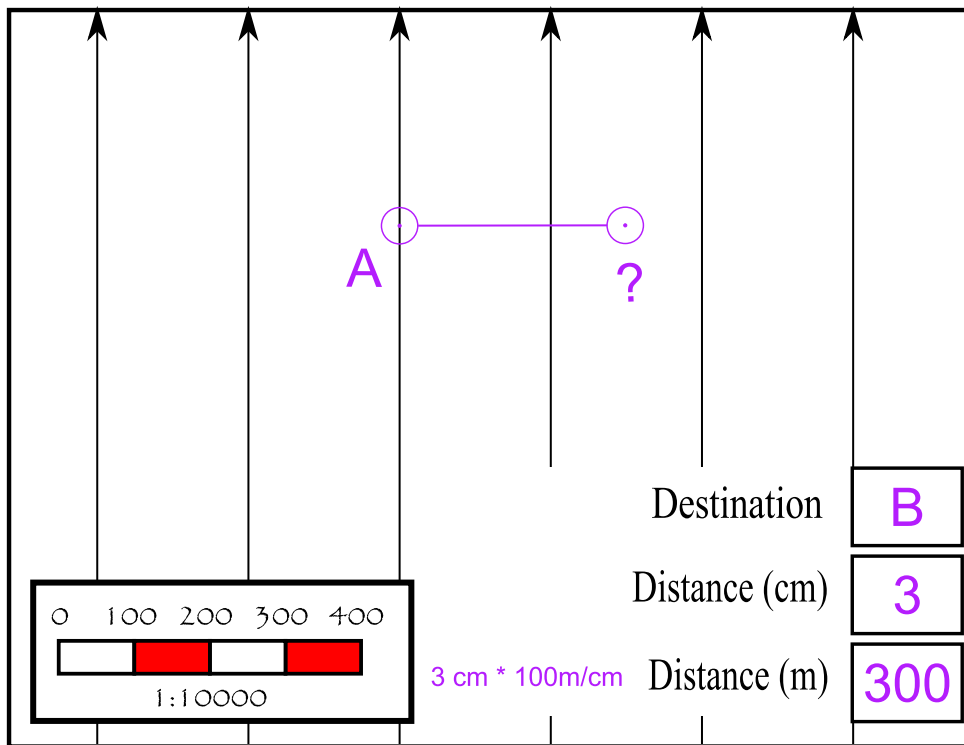
"Calibrating" the Compass

Navigating between Points on a Map

Use the following steps to orient your map and "calibrate" your compass. You use these steps when you are navigating between two points on a map. You use a different process when you navigate at a given bearing for a given distance.

1. **Orient the map** so that "where you are at" is at your chest, "where you are going" is straight out in front of you.
2. **Fold the map** so you can hold the map and the compass with one hand.
3. **Align the compass** so the straight edge on the side of the compass is **parallel** with the line between "where you are at" and "where you are going".
4. **Rotate the bezel** so that the magnetic north lines on the bezel are parallel with the magnetic north lines on the map. **Make sure the north box on the bezel points is in the same direction as the north arrow(s) on the map.**
5. **Put the "Dog" in the "Dog House".** Rotate your body to put the red of the floating north arrow inside the north box on the bezel.







GPHXO: 2020 Schedule (gphxo.org)

Jan 11: Robbins Butte	Beginner's Clinics:
Jan 25-26: Reach-11/Papago Park	Jan 4: Cholla Library
Feb 15-24: Southwest Spring Week	Jan 18: Rio Vista Park
Feb 22-23: Superstition Mountains	Jan 19: Papago Park
Mar 21: Dead Horse Ranch	Feb 5: Juniper Library
Apr 18: Sophie's Flat	Feb 27: Mesquite Library
May 16-17: Prescott	Apr 11: TBD
Jun 13-14: Mingus Mountain	Oct 7: Juniper Library
Jul 11: Ft. Tuthill	Nov 5: Mesquite Library
Aug 15: Lowell Observatory	Dec 5: TBD
Sep 12: Flagstaff	
Oct 17-18: Petrified Forest	
Nov 14: Bartlett Lake	
Dec 12: Lower Salt River	

Orienteering Clue Symbols

Example:



- A:** The control # (in this case, the fourth control)
B: The control code on or near the flag (49)
C: Which of several similar features (middle one)
D: The feature (the boulder)
E: Details of the feature's appearance
F: Dimensions of the feature (1.5 m high)
G: Location of the control marker (north side)
H: Other information (drinks available)

Column C:

Which feature?

	northern
	southwestern
	upper
	lower
	middle
	between

Column G:

Location of the Marker

	northern side
	northwest edge
	east corner (inside)
	southwest corner
	southern tip
	western part
	upper part
	lower part
	on the top
	southern foot
	at the foot (orientation not)

Column E:

Details at the feature

	shallow
	deep
	overgrown
	open
	rocky
	marshy
	sandy
	evergreen
	deciduous
	end (eastern)
	bend
	junction
	crossing

Column F: Dimensions

	height in meters
	length/width in meters

Column H: Other Info

	drinks
	radio control
	manned control
	first aid

Column D: The Feature

	earth bank		open land
	quarry		rough open land
	earth wall dam		forest corner
	terrace		clearing
	spur		thicket
	rib		logged area
	re-entrant		vegetation boundary
	erosion gully		tree cluster
	dry ditch		road
	hill or knoll		trail
	small knoll		tree cut
	saddle		wall
	depression		fence
	small depression		bridge
	pit		building
	cliff		ruin
	bare rock		hunter's stand
	cave opening		tower
	boulder		feed rack
	boulder field		rock pillar
	boulder cluster		single tree
	stony ground		salt lick
	lake		rootstock
	pond		trig. marker
	waterhole		rock pile
	stream		charcoal burning platform
	wet ditch		anthill
	marsh		broken ground
	small marsh		special feature*
	firm ground in marsh		special feature*
	well		
	spring		

*to be defined by organizer