

Before starting, on the right edge of this paper, mark at least 4 miles of map scale like we did with the AZ map.

- The name of this map is _____ and it is a $1^\circ / 30' / 15" / 7.5' / 3.75"$ (Circle one.) map
- The contour interval for this map is _____', the map was created in the year _____ and **updated** in the year _____ with parts that are colored _____. Contour lines are colored _____; structures are colored _____ Water is _____
- What 2 things are done to every 5th contour line? A _____ B _____
- Magnetic north (MN) is _____ ° (degrees) & _____ ' (minutes) E / W (Circle one.) of the North Star or Polar North - the star.
- The SOUTH map edge is _____ ° (degrees) _____ ' (minutes) _____ " (seconds) N. The NORTH edge is _____ ° _____ ' _____ " N.
- The miles of longitude (distance E-W) this map covers is _____ & miles of latitude (distance S-N) is _____
- Think about this. Why is the latitude measurement more than the longitude measurement? (Consider: Where on Earth would the two be the same?)

[Handy USGS Topographic Map Legend. Click me to help with the following questions.](#)

- Railroads are just south of Washington St and Grand Avenue. The symbol for the railroad is _____
- Find the Phx Country Club. The TOWNSHIP is _____ the RANGE is _____, SECTION NUMBER is _____ and 1/4 SECTION is _____
- Find SMCC's location. The TOWNSHIP is _____ the RANGE is _____, SECTION NUMBER is _____ and 1/4 SECTION is _____
- Why isn't SMCC on this map? _____. What WAS where SMCC now is? _____
- The elevation of the SMCC campus is approximately _____'.
- What are those crossed shovels  that can be found in the Salt River bed? _____
- Find a school. The name of the school is _____ & the symbol for a school is _____ (Draw it.)
- The corner of 24th Street and Broadway is marked with a spot elevation of _____'.
- If you walk from 24th St. & Broadway to 24th & Baseline, you CLIMB / DROP a total of _____ ft in _____ miles for a gradient of _____ ft/mi.
- The **LONGEST** runway at Phx Municipal Airport is _____ miles & has generally a **E-W** or **N-S** (Circle one.) orientation.
- The **highest corner** of the map is NE/SW/NW/SE, elevation _____' Lowest is NE/SW/NW/SE at _____' (Circle one.)
- Which part of this map is the lowest and why? _____
- Find Thomas & 7th St. Walk from Thomas Road & 7th Street south to McDowell. Then walk east to 16th Street. Now walk north to Thomas. Return to your starting point. You just walked in a square. This is a total distance of _____ miles.
- Hmmm.. what do you notice about the distance between all the major streets in Phoenix? _____
- Little triangles or X marks (bench marks or measured elevations) often are on intersections. The elevation of 19th Ave/McDowell is _____'.
- Find the Salt River and follow it all across the map. Note the elevations. Which way does the Salt generally flow? N, E, S or W (Circle one.)
- The approximate elevation of the the Salt River at the **east** is _____' & at the **west** is _____' for a drop of _____'.
- On this map the Salt River runs _____ miles and drop _____' for a gradient of _____ ft/mile. (Divide feet by miles!)
- Why are those gravel pits /mines along the Salt River? _____
- Which direction do the contour lines point when they cross the Salt River (or a canal), UPSTREAM or DOWNSTREAM? (Circle one.)
- You are lazy and always skateboard DOWNHILL. Leaving SMCC, what direction would you board on 24th Street, **N** or **S**? (Circle one.)

29. Which way would you *lazily* skateboard on Thomas Road, **N, S, E,** or **W**? (Circle one.)

30. List the names of all the maps that surround your Union Hills quad in the middle of the sketch below. North is on the top of the following sketch.

_____	_____	_____
Name of the map NW of the Phoenix Quad	Name of the map north of the Phoenix Quad	Name of the map NE of the Phoenix Quad
PHOENIX QUADRANGLE		
_____		_____
Name of the map W of the Phoenix Quad		Name of the map E of the Phoenix Quad
_____	_____	_____
Name of the map SW of the Phoenix Quad	Name of the map south of the Phoenix Quad	Name of the map SE of the Phoenix Quad

31. Draw the profile from the corner of **24th Street & Baseline to 24th Street and Broadway**. Remember that each inch = 2,000'

1180 _____

1170 _____

1160 _____

1150 _____

1140 _____

1130 _____

1120 _____

1110 _____

1100 _____

1080 _____

32. Measure with a ruler the grid above. Each VERTICAL inch on the grid of lines above = _____' on the grid.

33. Calculate the vertical exaggeration of the profile above by dividing horizontal feet/inch / vertical feet/inch Exaggeration is _____

34. Why did we need a vertical exaggeration to make the profile work? Can't we just use one scale?

35. The *bearing* of Grand Avenue as it leaves downtown Phoenix from 7th Street and McDowell is _____
(In what direction is it heading, Captain?)

36. When contour lines appear far apart, the relief is STEEP / NEARLY FLAT.

37. The contour lines grow closer together near the southern edge of the map? Why?

38. Write your own good topo question and answer.

Q

A