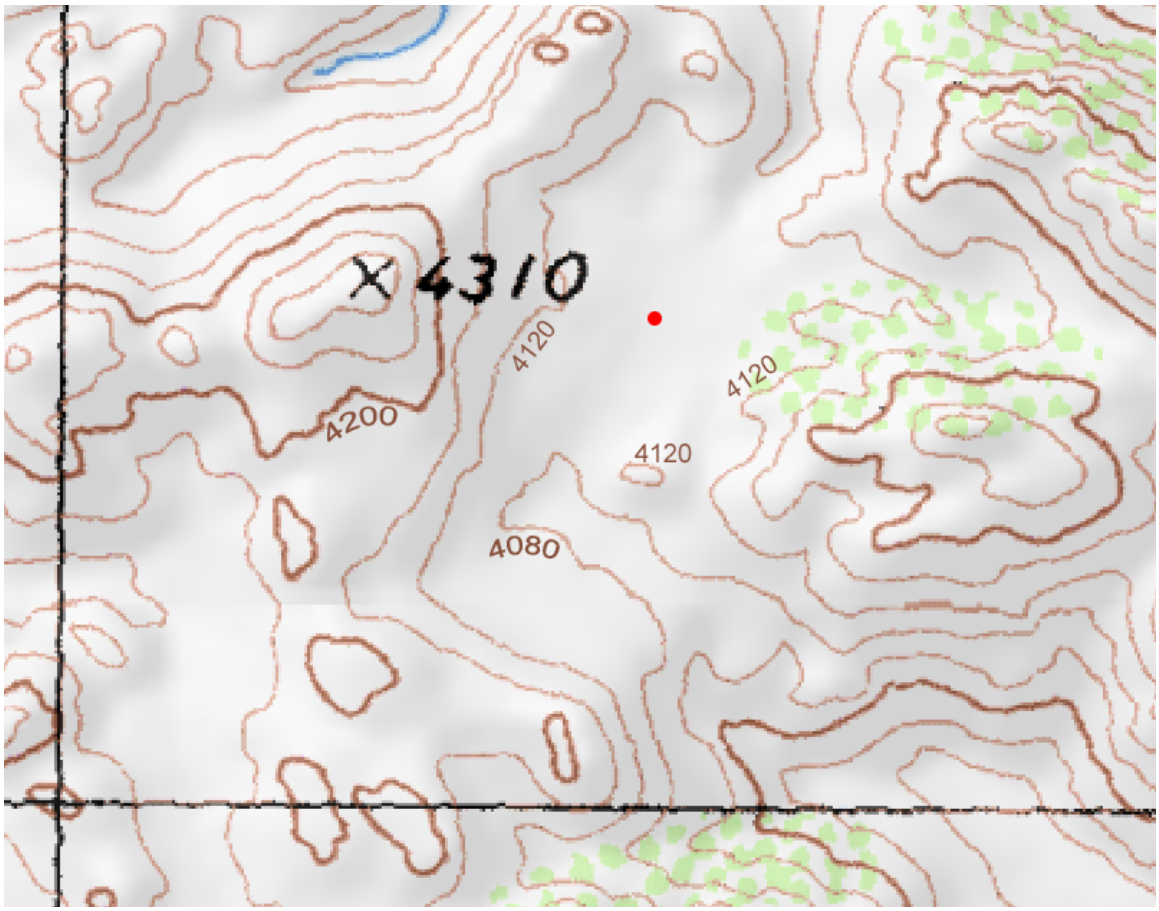
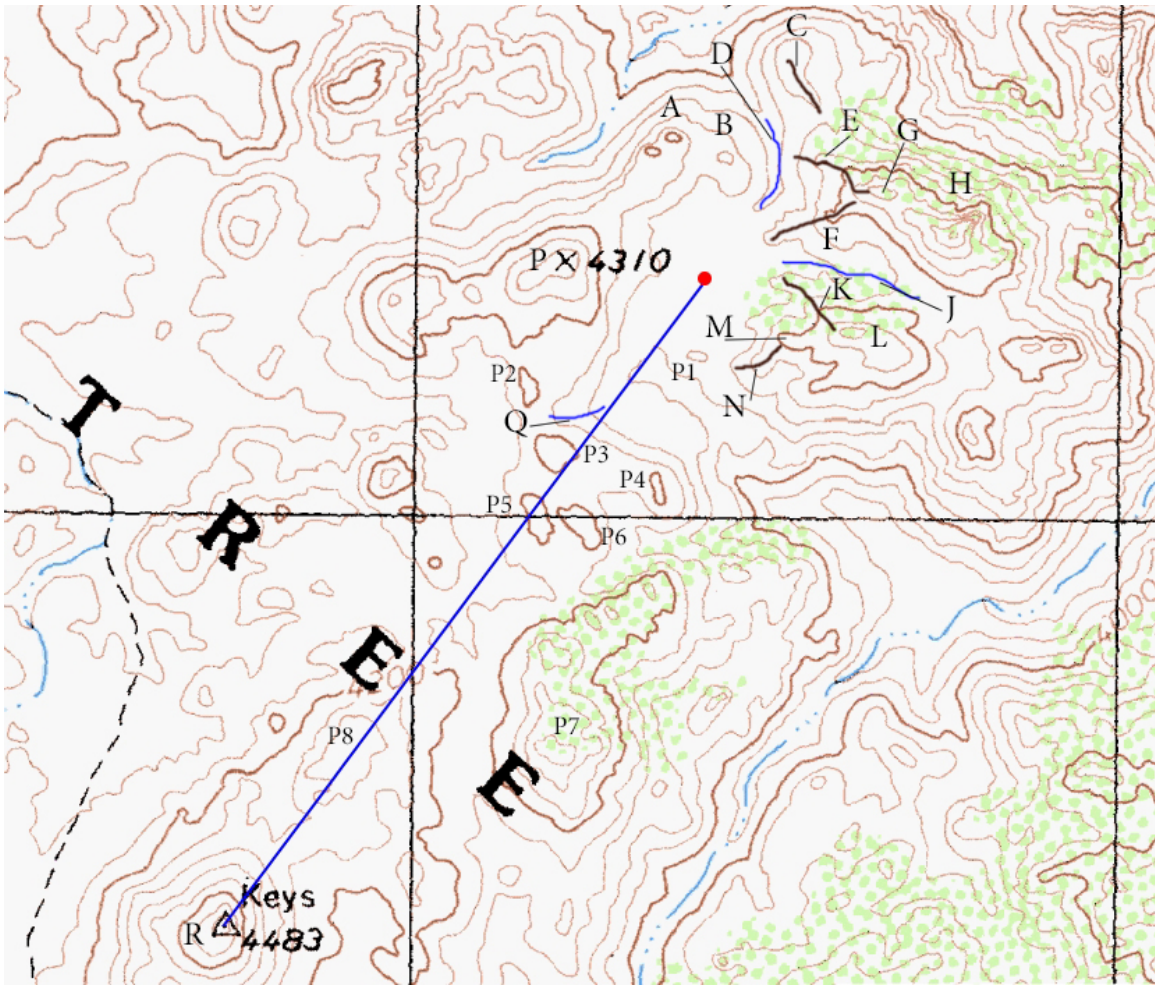
Topo Matching Exercise – Answers for Students

Elevation

The rock pile 400 (more like 380) feet to the south is **P1** on the next page and rises to something a little over 4120'. See the answer sheet topo below. We judge our elevation to be about the same: **4120'**. The surrounding flat is somewhat lower but within 40' of elevation, e.g. 4100'.





A and B
Moving left from gully D, B is the first lump and A the second.

Ridge C
C is seen behind gully D. Compare its elevation to the B ridge and note that C will disappear behind the B ridge. It will also merge into the E ridge.

Gully D
D is the main gully in the center of the view. This is an identifiable feature that helps locate others.

Ridge E
E is seen dropping into gully D from the right.

Ridge F
Like E, F is a part of the G-H ridge. It's the ridge on the left end of the G-H ridge that runs toward the viewer.

G and H
Peak G is at the left end of the G-H ridge, at the top of ridge F. Peak H is on the right end of the G-H ridge. Peak H is peak 4377.

Gully J
Between the G-H ridge and peak L lies gully J.

Ridge K
K drops from peak L into gully J.

Peak L
L is the high point of the mound to the right of ridge G-H.

False Peak M
The west ridge of L runs from L to our right heading due west. At M it turns southwest, running more away from us to the right. Note that you can see the left (north) slope of M which is the right wall of the gully between M and ridge K.

Ridge N
N runs away from us to the right of M.

Peak P
P is 4310, and the major hill to the right of center in our view WSW.

Gully Q
The left ridge of P drops to hit a little bump (P2) and then gully Q.

Peak R
R peaks up behind a ridge just to the left of gully Q.

Plausible candidates for R
You can see that R is something sticking up behind the P3 – P4 ridge. Some plausible candidates for R include: **P5, P6, P7, P8, and Keys**.

P5 and P6
These peaks would be expected to appear lower than P3 and P4 so they are out.

P7
P7 is visible, but it is in the wrong place. Follow the ridge from right to left and see it drop from 4310 and then rise slightly to P2, see the gully Q, and then see the rounded ridge at P3. The ridge would be expected to dip again and then rise at P4. P7 would be

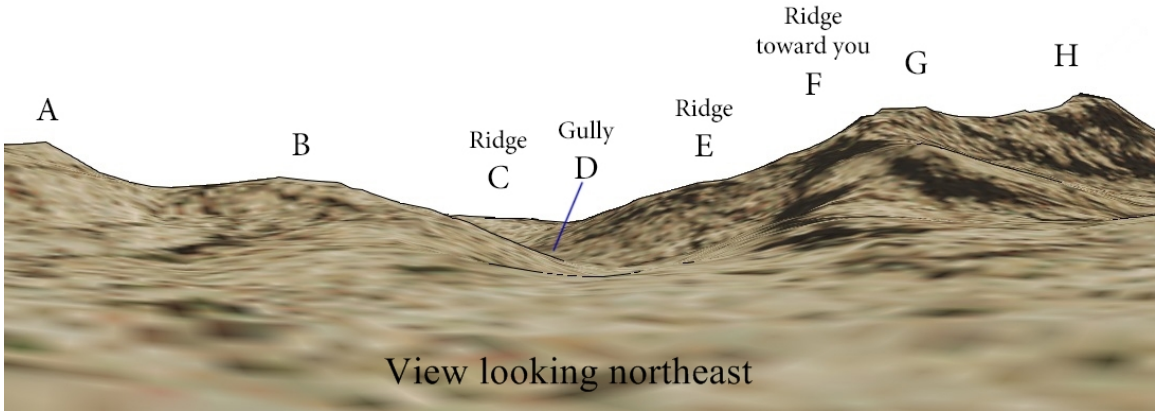
visible in the dip, but the dip and P7 are to the left of the left edge of our view. R should be behind the P3 lump.

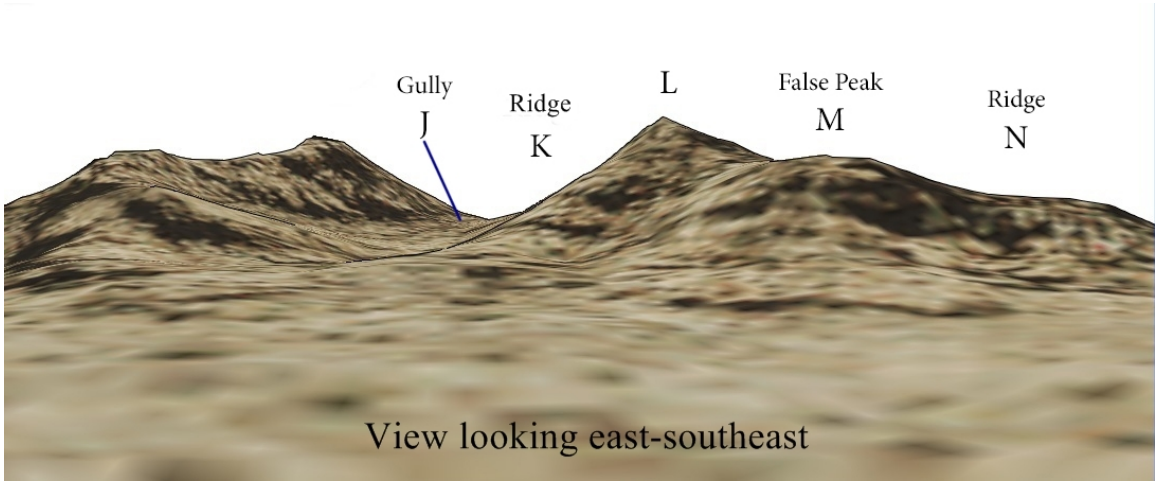
P8
It turns out that P8 isn't visible behind the P3 ridge, but it's in the right direction. Note that, without calculating visibility, Keys is a better candidate because it is 200 feet higher without being much farther away. Keys peak also better matches the shape of the peak that we see.

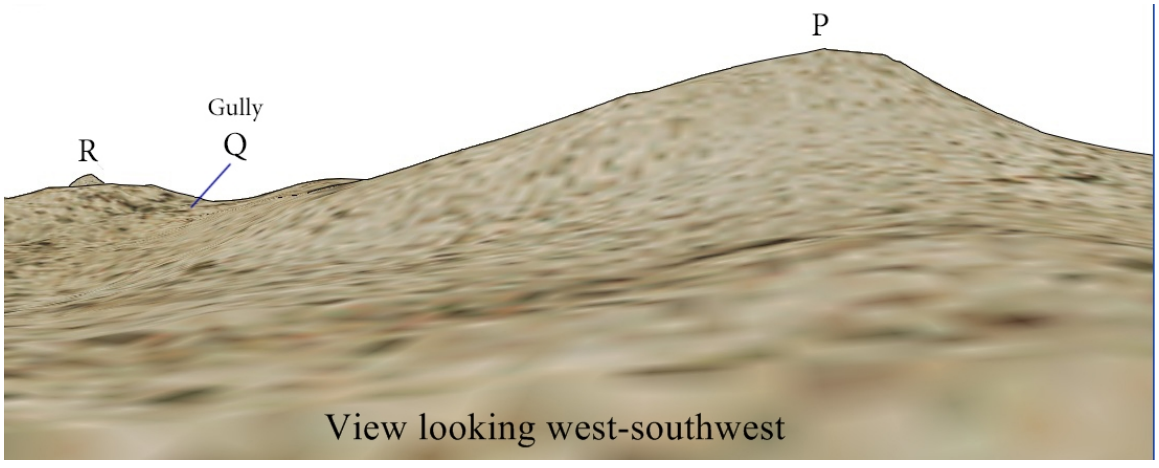
Keys Peak
Keys is in the right place and it turns out that it's visible. It's shape matches what we expect from the contour lines.

Views are on the next page.

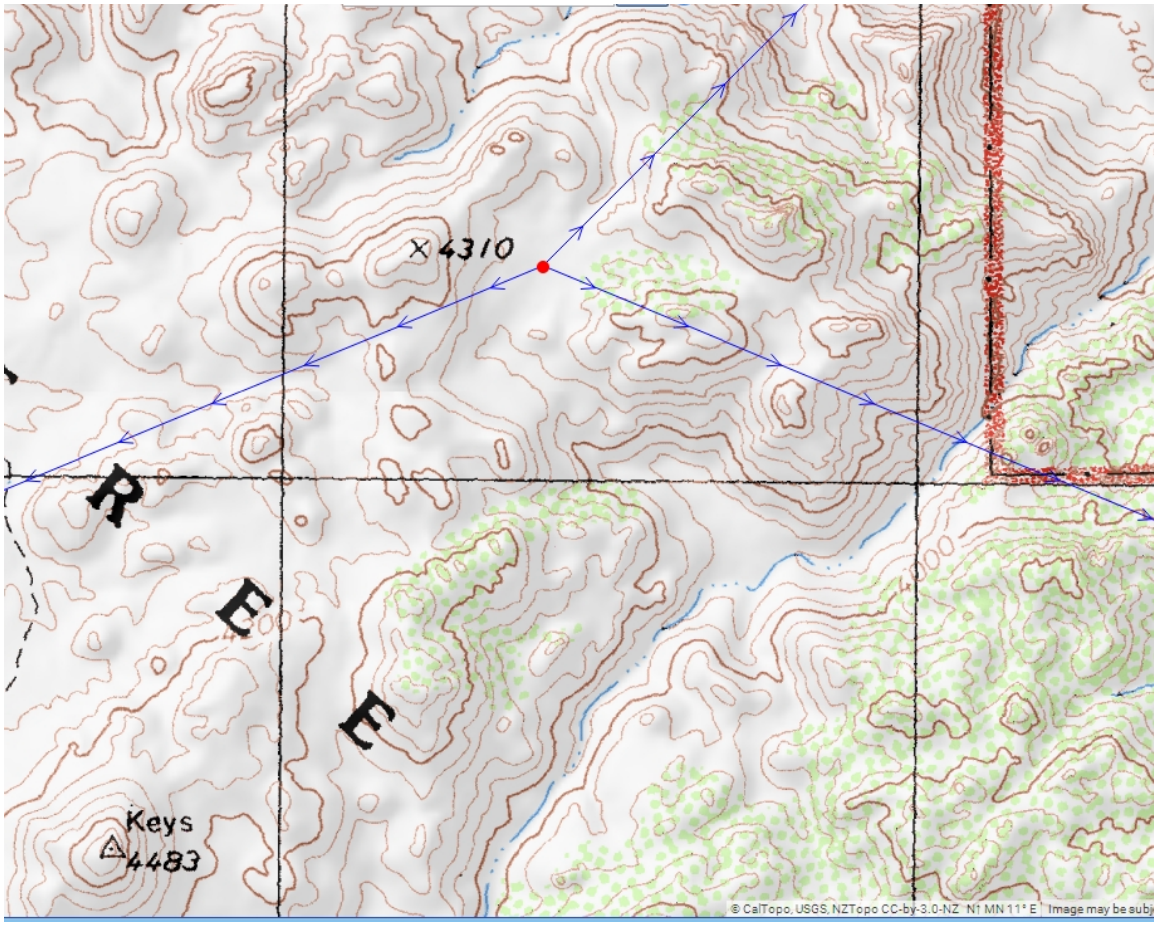
Views page


A
B
Ridge
C
Gully
D
Ridge
E
Ridge
toward you
F
G
H
View looking northeast


Gully
J
Ridge
K
L
False Peak
M
Ridge
N
View looking east-southeast


P
Gully
Q
R
View looking west-southwest

Nominal View Directions



Actual view directions are slightly different for the second two views.