

1. Using the attached gravity map:

- Contour the regional gravity
- mark any potential faults
- note the offset of those faults

2. Use the equations developed in class to build a spreadsheet model of the gravity over a buried sphere with these parameters:

- Diameter = 1 kilometer
- Depth to center = 0.5 kilometer
- Density contrast with bedrock of 500 kg/m^3
- $x = 0$ directly over the center of the sphere

Present a smooth, symmetrical graph of the gravity from the sphere.

3. Continue with your spreadsheet from problem one by making a similar graph for the situation in the figure to the right. The difference is now there is a second sphere of the same size, density contrast, etc. as the first one but it is buried directly below the first one such that its center is 1.5 kilometers below the surface. On the graph show the anomaly for each sphere and the combined (sum) of the anomalies for both spheres.



