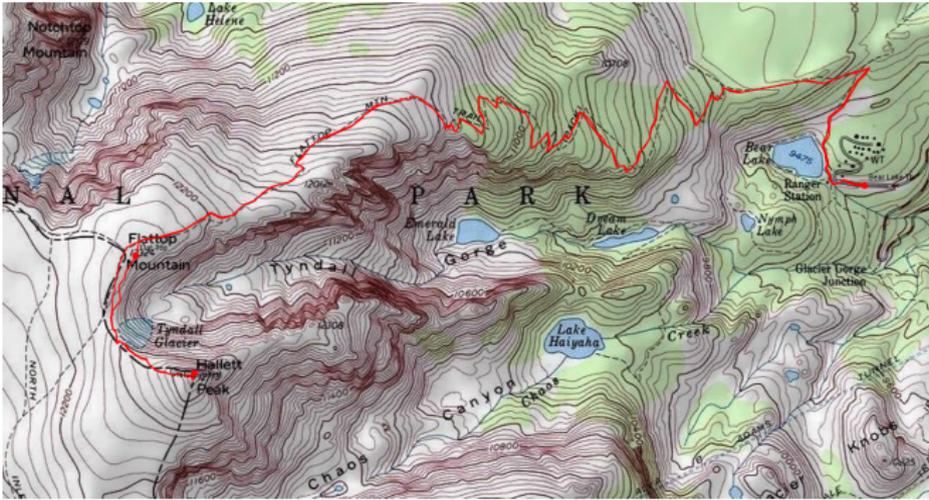
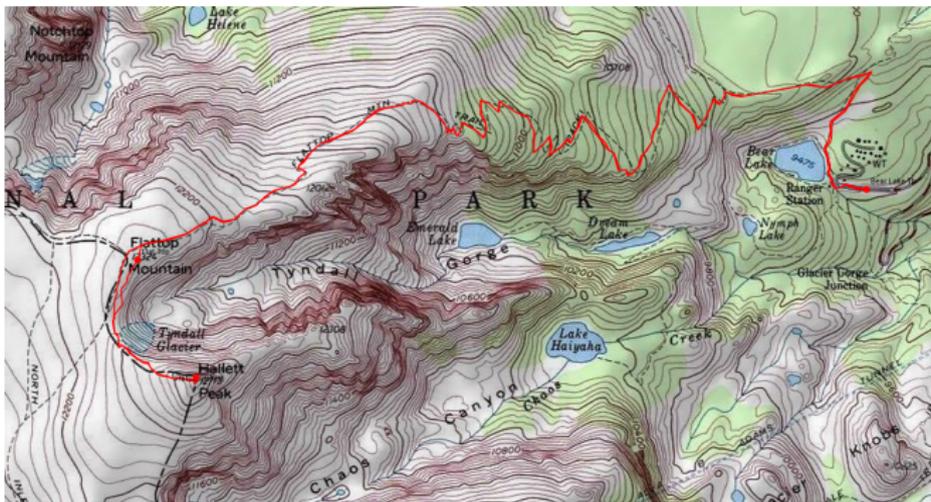


Contour Map



Contour Map



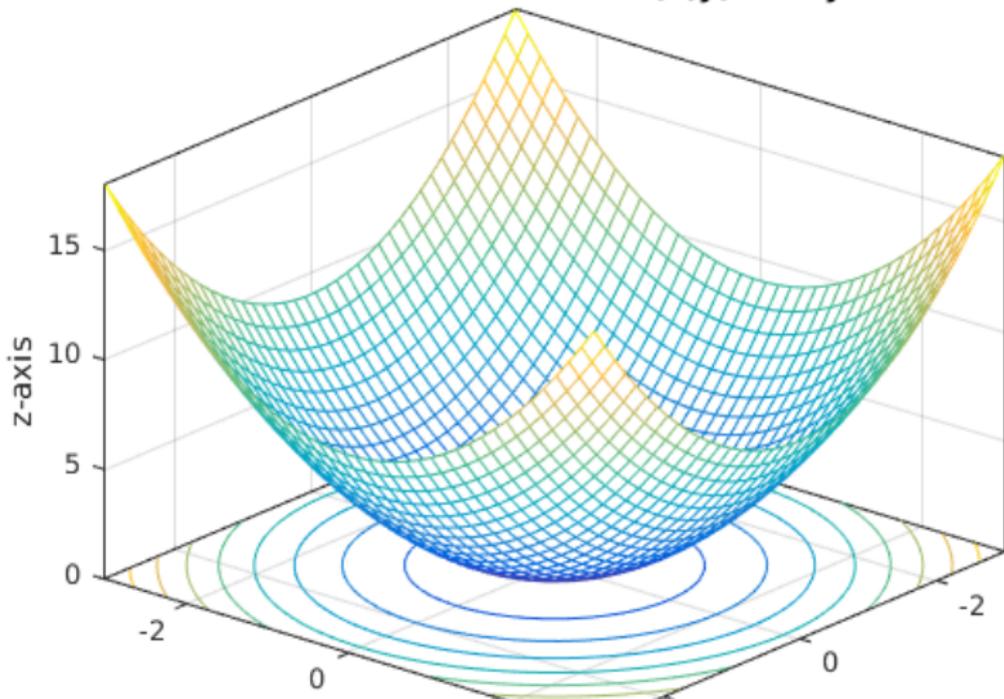
Remarks

- 1 If you walk along a contour line, you will neither gain or lose elevation.
- 2 You are walking along a curve of constant elevation.
- 3 If you walk in a direction perpendicular to the contour line, then you are walking uphill or downhill.
- 4 When contour lines are close together, the gain or loss of elevation is rapid, you are in for a tough hike!

$$f(x, y) = x^2 + y^2$$

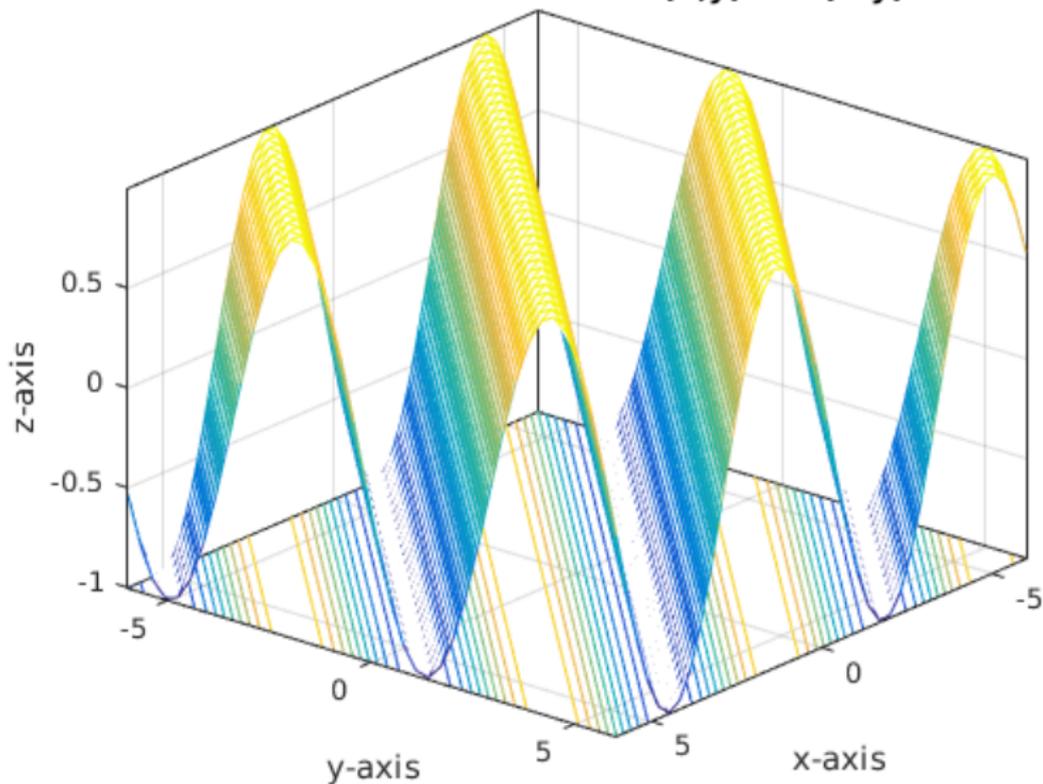
- ① The level curves $f(x, y) = k$ are $x^2 + y^2 = k$ (circles of radius \sqrt{k} center at $(0, 0)$).

Mesh and contours for $f(x, y) = x^2 + y^2$.



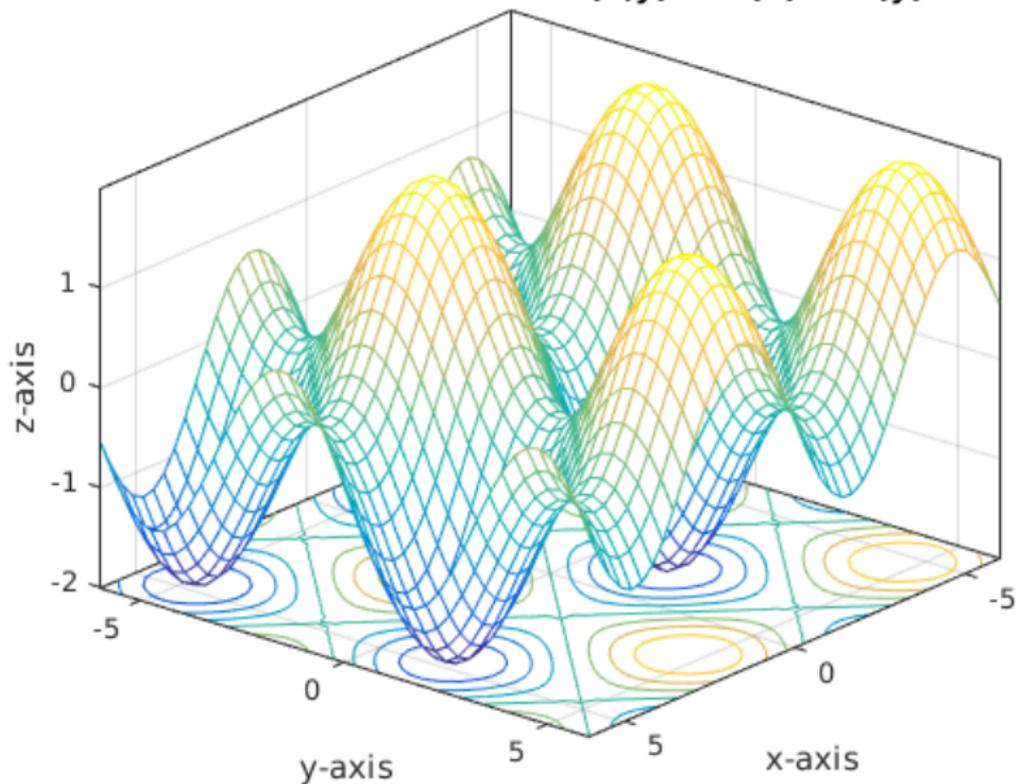
$$f(x, y) = \sin(x - y)$$

Mesh and contours for $f(x,y)=\sin(x-y)$.



$$f(x, y) = \sin(x) - \sin(y)$$

Mesh and contours for $f(x,y)=\sin(x) - \sin(y)$.



$$f(x, y) = (x - y)/(1 - x^2 - y^2)$$

Mesh and contours for $f(x,y)=\sin(x) - \sin(y)$.

