

Tangent Plane to a Level Surface

$$\nabla f(x_0, y_0, z_0) \cdot \langle x - x_0, y - y_0, z - z_0 \rangle = 0$$

Tangent Line to a Level Curve

$$\nabla f(x_0, y_0) \cdot \langle x - x_0, y - y_0 \rangle = 0$$