1A. Let \( T(x, y, z) = x + y^3 + z^5 \). Find the equation of the plane tangent to the level surface of \( T \) at the point \( (3, 2, 1) \).

1B. If \( T \) represents the temperature of an object at a point \( (x, y, z) \) inside that object, in which direction from \( (3, 2, 1) \) is the temperature maximized?

2. Let \( \mathbf{G}(x, y, z) = (xyz, x^2 + y^3 + z^4, x + y + z) \).

2A. Find \( \text{div}(\mathbf{G}) \).

2B. Find \( \text{curl}(\mathbf{G}) \).

3C. Do the vector field problem on the reverse side!
3. Let \( \mathbf{F} = (2x - y, x^2 - y^2) \). Draw the vectors given by this vector field at the three points indicated.