If \( \mathbf{a} = 4\mathbf{i} + 5\mathbf{j} + 6\mathbf{k} \), find

A) A parametrization for the line through the point \((1, 2, 3)\) and parallel to \(\mathbf{a}\).

B) A coordinate equation (in \(x, y,\) and \(z\)) for the plane through the point \((1, 2, 3)\) and normal to \(\mathbf{a}\).