

### Problem Set 2: Extra Problems

1. Find the angle between two lines joining pairs of opposite vertices on a cube.
2. Find parametric equations for the line passing through the point of intersection of the lines  $\mathbf{r}_1(t) = \langle 1 + 2t, 1 - t, 2 + t \rangle$  and  $\mathbf{r}_2(t) = \langle 6 + t, t, 1 - 3t \rangle$  and perpendicular to both lines.