

MAT 221 – 051
Spring 2008
Review for Test Two

1. Find parametric equations of the line through the point $(2, -3, 4)$ and perpendicular to the plane $2x - y + 3z = 4$.

2. Find the point of intersection of the line $x = 3 + 2t$, $y = 6 - 5t$, $z = 2 + 3t$ and the plane $3x + 2y - 4z = 1$.

3. Find the cosine of the angle between the planes $2x - y + z = 5$ and $x + y - z = 1$.

4. Find parametric equations for the line of intersection of the planes $x - y + z = 1$ and $x + y - z = 1$.

5. Find an equation for the plane that contains the point $(3, 3, 1)$ and is perpendicular to the planes $x + y - 2z = 0$ and $2x + z = 10$.

6. Find an equation of the plane containing the points $(1, 0, -1)$, $(3, 3, 2)$, and $(4, 5, -1)$.

7. Find an equation of the plane that contains the point $(1, 2, 3)$ and the line $x = -1 + 3t$, $y = 6$, $z = 2 + t$