

Problem Set 1 Calc 3 Due 10/4/2002

[5pts.]1. (Stewart 12.5 #28) Find an equation for the plane that passes through the origin and the points $(2,-4,6)$ and $(5,1,3)$.

[5pts.]2. (Stewart 12.5 #34) Find an equation for the plane that passes through the line of intersection of the planes $x-z=1$ and $y+2z=3$ and is perpendicular to the plane $x+y-2z=1$.

[5pts.]3. (Stewart 12.5 #42) Find the angle between the planes $-8x-6y+2z=1$ and $z=4x+3y$

[5pts.]4. (Stewart 12.5 #52) Find an equation for the plane consisting of all points that are equidistant from the points $(-4,2,1)$ and $(2,-4,3)$.

[5pts.]5. (Stewart 12.5 #56) Find parametric equations for the line through the point $(0,1,2)$ that is perpendicular to the line $x=1+t$, $y=1-t$, $z=2t$ and intersects this line.