14.6 Even Answers (Part III)

(40) Plane: $8(x-4)-1(y-7)-6(z-3)=0$
or $8x-y-6z=7$

Line: $\frac{x-4}{8}=\frac{y-7}{-1}=\frac{z-3}{-6}$ or $x=8t+4$, $y=-t+7$, $z=-6t+3$

(42) Plane: $1(x-(1+\pi))-2(y-1)-3(z-1)=0$
or $x-2y-3z=-4+\pi$

Line: $x=t+1+\pi$, $y=-2t+1$, $z=-3t+1$

(44) Plane: $-(x-0)+1(y-0)-1(z-1)=0$
or $x-y+z=1$

Line: $x=-t$, $y=t$, $z=-t+1$

(54) Show tangent plane are the same.
$3x+2y+2z=9$

(56) (Sphere normal lines through center proof.)

(60a) $x=-4t+1$, $y=2t+2$, $z=-2t+1$