

Since the plane is perpendicular to the vector  $\langle -2, 1, 5 \rangle$ , we can take  $\langle -2, 1, 5 \rangle$  as a normal vector to the plane.  $(6, 1, 4)$  is a point on the plane, so setting  $a = -2$ ,  $b = 1$ ,  $c = 5$  and  $x_0 = 6$ ,  $y_0 = 1$ ,  $z_0 = 4$  in equation  $a(x - x_0) + b(y - y_0) + c(z - z_0) = 0$  gives  $-2(x - 6) + 1(y - 1) + 5(z - 4) = 0$  or  $-2x + y + 5z = 9$  to be an equation of the plane.