Show all work. How you get your answer is just as important, if not more important, than the answer itself. If you think it, write it!

Find the equation of the plane that passes through the points

\[ P = (1,2,3), \ Q = (-1,1,-1), \text{ and } R = (-2,3,5) \]

Does the point \((3,2,1)\) lie on this plane??