

**Lines and planes** Consider three points  $P(1, 1, 1)$ ,  $Q(3, 0, 0)$  and  $S(0, 1, 1)$ .

1. Write the vector equation and the parametric equations of the plane containing the three points  $P$ ,  $Q$  and  $S$ .
2. Write the vector equation and the parametric equations of the line containing the points  $P$  and  $S$ .