

Define line:

If  $r(t)$  is the position vector of a point  $P(x, y, z)$  on the line and  $r_o$  is the position vector of the point  $P_o(x_o, y_o, z_o)$  then this equation can be written as  
 $r(t) =$

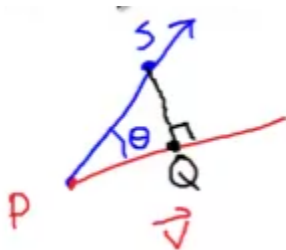
Write the components of the parametrization of the line through  $P_o(x_o, y_o, z_o)$  parallel to  
 $v = v_1i + v_2j + v_3k$

x=

y=

z=

Write the notation for this figure



$$|\overline{PS}| \sin \theta =$$

$$\frac{|u \times v|}{|v|} =$$

$$u =$$

How is a plane in space determined?

$$n \cdot \overline{P_oP} =$$

Two planes are \_\_\_\_\_ if their normal are parallel or  $n_1 = kn_2$  for some scalar k. Two planes that are not parallel \_\_\_\_\_ a line.