Fig. 1. $\hat{e} \times \hat{j} = \hat{k}$

Fig. 2. The right hand rule

Fig. 3. Geometrical Interpretation of $|\hat{a} \times \hat{b}|$
Fig. 4. Finding a vector \( \perp \) to the plane through \( P, \phi \) and \( R \)

Fig. 5. Parallelogram defined by \( P, \phi \) and \( R \)
Fig. 6. A line in 2D is determined by a point and a slope.
Fig. 7. A line in 3D is determined by a point and a direction.

\[ \overrightarrow{r} = \overrightarrow{r}_0 + \overrightarrow{v}t \]

Fig. 8. Finding the equation for a line.
Fig 9. A plane is determined by a point and a direction.

\[ \hat{n} \cdot (\vec{r} - \vec{r}_0) = 0 \]

Fig 10. Finding the equation for a plane.