1. *If* $\mathbf{A} = 2\hat{\mathbf{i}} - 3\hat{\mathbf{j}} + 7\hat{\mathbf{k}}, \mathbf{B} = \hat{\mathbf{i}} + 2\hat{\mathbf{j}}$

Solution $\mathbf{A} \cdot (\mathbf{B} \times \mathbf{C}) = [\mathbf{ABC}]$, volume of parallel

$$= \begin{vmatrix} 2 & -3 & 7 \\ 1 & 2 & 0 \\ 0 & 1 & -1 \end{vmatrix} = 2(-2-0) + 3(-$$

Therefore **A**, **B** and **C** are coplanar vectors.