

### Special Problem 2- 4.3

Using directly the results for dot product and cross product, show that the **triple product** can be expressed in terms of the scalar components of three vectors **A**, **B**, and **C** as:

$$\mathbf{A} \cdot \mathbf{B} \times \mathbf{C} = (A_x B_y C_z + A_y B_z C_x + A_z B_x C_y) - (A_x B_z C_y + A_y B_x C_z + A_z B_y C_x)$$