## Problem 1

Let $u = \langle 1, 3, 5 \rangle$ and $v = \langle 2, 1, -1 \rangle$. Compute $u \times v$.

## Problem 2

Let $u = 2i + j + 3k$ and $v = -i + 3j + 2k$. Find $u \times v$.

## Problem 3

Let $P$ be the plane containing the points $(1, 0, 0)$, $(3, 2, 4)$ and $(2, 1, 3)$. Find a vector perpendicular to this plane.

## Problem 4

Let $T$ be the triangle with vertices at the points $(1, 0, 0)$, $(3, 2, 4)$ and $(2, 1, 3)$. Find the area of $T$.