Compute the angle between the two planes with equations:

\[-x + z + 2 = 0 \quad \text{and} \quad x - y + 3 = 0.\]

\[\begin{array}{c}
A & 0 \\
B & \frac{\pi}{6} \\
C & \frac{\pi}{4} \\
D & \frac{\pi}{3} \\
E & \frac{\pi}{2}
\end{array}\]
Compute the determinants and make an observation.

\[
\begin{vmatrix}
1 & 3 \\
4 & 2
\end{vmatrix} \quad \begin{vmatrix}
4 & 2 \\
1 & 3
\end{vmatrix}.
\]

Observation:

A. That was fun!

B. Funny, there was no relationship between those two determinants.

C. Those two numbers are negatives of each other!

D. I’m lost, but at least I know how to compute the determinants.

E. I walked in late, and am trying to figure out where to sit down.
Compute the determinant:

\[
\begin{vmatrix}
2 & 1 & 0 \\
-3 & 4 & 2 \\
5 & -1 & -2 \\
\end{vmatrix}.
\]
Cross Product

Compute the cross product of $\mathbf{u} = \langle 0, 1, 3 \rangle$ and $\mathbf{v} = \langle 2, 1, 1 \rangle$:

$\mathbf{u} \times \mathbf{v} =$

A $\langle -2, 6, -2 \rangle$
B $\langle 1, 0, 3 \rangle$
C $\langle 0, 0, 0 \rangle$
D $\langle 3, -2, 2 \rangle$
1. $u \times v$ is orthogonal to $u$ and $v$.
2. $|u \times v| = |u||v|\sin(\theta) = \text{Area of parallelogram}$
3. $u \times v = -v \times u$
4. $u \times u = 0$
5. $u \times (v + w) = u \times v + u \times w$. 

\[ \begin{array}{c}
\text{v} \\
\theta \\
\text{u}
\end{array} \]
Which of the following is **incorrect**?

A. $i \times j = k$
B. $i \times k = j$
C. $j \times k = i$
What is the equation of the plane containing the points $A = (0, 0, 1)$, $B = (0, 1, 4)$, and $C = (2, 1, 2)$?

- **A** $-2x + 6y - 2z + 4 = 0$
- **B** $2x + 6y + 2z + 4 = 0$
- **C** $-2x + 6y - 2z + 2 = 0$
- **D** $2x + 6y - 2z + 2 = 0$