1. Find the angle between the two planes

\[
2x + y - 5z = 32 \\
x + 2y + 7z = \sqrt{17}
\]

**Lecture Problems**

2. Calculate the determinants

\[
\begin{vmatrix}
1 & 2 \\
4 & -2
\end{vmatrix} = \\
\begin{vmatrix}
1 & 2 & 0 \\
4 & -2 & 1 \\
0 & 1 & 5
\end{vmatrix} = \\
\begin{vmatrix}
-5 & -78 & 31 \\
0 & 2 & 891 \\
0 & 0 & -3
\end{vmatrix} = 
\]

3. Calculate the cross product

\[
(-2, 1, -2) \times (1, -1, 3) =
\]

4. Find two different unit vectors both orthogonal to \((-2, 1, -2)\) and \((1, -1, 3)\).

5. Find a parametrization of the circle centered at \((1, 5)\) with radius 7.

6. Find the equation of the line tangent to the curve

\[
r(t) = (-2t + 1, t^2, t^3)
\]

when \(t = 1\).