1. Solve

\[
\begin{vmatrix}
1 & 2 & -3 \\
x & 4 & 7 \\
5 & 5 & 2
\end{vmatrix} = 11
\]

2. Use Cramer’s Rule to solve for \( x \) only in the following linear system:

\[
\begin{align*}
2x + y + z &= 5 \\
ax - 2y - 2z &= 9 \\
4x + 5y + 3z &= 2
\end{align*}
\]

3. Find the focus, directrix, vertex and axis of the parabola \((y - 2)^2 = -6(x + 1)\). Sketch the curve.

4. Put the parabola \(y^2 - 10x - 2y - 29 = 0\) into \textit{standard form}. Find the focus, directrix, vertex and axis.