

Homework Exercises for Determinants  
Due February 28, 2002

1. Compute the determinant of the matrix

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

2. Compute the determinant of

$$A = \begin{bmatrix} 1 & 0 & 0 & -1 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 1 & 1 \\ 0 & -1 & 0 & 1 \end{bmatrix}$$

3. Use Cramer's rule to solve the equations

$$\begin{aligned} x + y + z &= 2 \\ x - y &= 1 \\ x - z &= 0 \end{aligned}$$