

Math 261, Quiz 2

1. (15 points) Evaluate the determinant of the following matrix A in $\text{Mat}_{4 \times 4}(\mathbf{Q})$:

$$A = \begin{pmatrix} 1 & 1 & 1 & 1 \\ 1 & 2 & 3 & 4 \\ 1 & 4 & 9 & 16 \\ 1 & 8 & 27 & 64 \end{pmatrix}.$$