

# Home work 2

**Submission (Monday 11 September)**

**Note: If the university is closed on 11 September then submit the home work on Wednesday 13 September**

**Q. 1 what conditions must  $b_1, b_2, b_3$  satisfy for the following system to be consistent**

$$\begin{aligned}x_1 - 2x_2 + 5x_3 &= b_1 \\4x_1 - 5x_2 + 8x_3 &= b_2 \\-3x_1 + 3x_2 - 3x_3 &= b_3\end{aligned}$$

**Q. 2 If possible find the inverse of the matrix with elementary row operations**

$$A = \begin{bmatrix} 2 & 1 & 2 \\ 2 & 2 & -2 \\ 3 & 1 & 1 \end{bmatrix}$$

**Good luck**