

MTH 261 – Supplemental **practice** HW for week 1

For each of the following augmented matrices:

- Find, **by hand**, the reduced echelon form of the matrix; check the result on your calculator.
- State the solution set to the system of equations suggested by the original matrix.

Solutions to part (a) of the odd numbered problems can be found under the lecture notes/group work link on my MTH 261 page. Answers for part (b) are also shown there for all problems (odds and evens).

Note: Double check that you copied down the matrix correctly before proceeding with a problem!

$$1. \left[\begin{array}{cc|c} 0 & 2 & 10 \\ 2 & 5 & 21 \end{array} \right]$$

$$2. \left[\begin{array}{cc|c} 2 & -3 & 17 \\ 5 & 2 & 14 \end{array} \right]$$

$$3. \left[\begin{array}{ccc|c} -4 & 3 & 5 & -22 \\ -1 & 3 & 8 & -10 \\ 6 & 2 & 12 & 20 \end{array} \right]$$

$$4. \left[\begin{array}{ccc|c} 0 & 4 & 2 & -4 \\ 2 & -1 & -1 & 0 \\ 5 & 7 & 0 & -23 \end{array} \right]$$

$$5. \left[\begin{array}{ccc|c} 3 & 4 & -9 & 14 \\ -5 & 2 & 15 & 20 \\ 1 & 1 & -3 & 3 \end{array} \right]$$

$$6. \left[\begin{array}{ccc|c} 1 & -2 & 1 & 2 \\ -2 & 4 & 3 & -7 \\ 6 & -12 & -7 & 10 \end{array} \right]$$

$$7. \left[\begin{array}{cccc|c} 0 & 3 & 5 & 1 & -7 \\ 1 & 1 & 4 & -2 & -5 \\ 4 & 3 & -1 & -1 & 5 \\ 6 & 1 & 1 & 3 & 13 \end{array} \right]$$

$$8. \left[\begin{array}{cccc|c} 1 & 3 & 1 & 3 & 6 \\ 1 & -1 & -1 & -13 & -2 \\ -2 & -3 & 1 & 6 & -3 \\ 3 & 7 & 2 & 1 & 14 \end{array} \right]$$