QUIZ 1 - MATH 305   Friday, September 1

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5
points. It is necessary to show **all** your work. Correct answers without explanations are
worth 0 points. GOOD LUCK!!

1. Solve the system using the matrix method (elementary row operations):

$$\left\{ \begin{array}{rrrcr} x_1 & & -3x_3 & = & 8 \\ 2x_1 & +2x_2 & +9x_3 & = & 7 \\ & x_2 & +5x_3 & = & -2 \end{array} \right\}$$

2. Which equation should the constants a, b and c satisfy so that the matrix

$$\left[\begin{array}{ccc|c} 1 & -2 & 5 & a \\ 0 & -3 & -2 & b \\ -2 & 7 & -8 & c \end{array}\right]$$

corresponds to a consistent system?