



LUND
UNIVERSITY

Linear Algebra
Saturday, 21 November 2015
Duration: 08:00–13:00

Centre for Mathematical Sciences
Mathematics, Faculty of Science

Answers

1. $x = (-1, \frac{11}{12}, -\frac{1}{4})$.

2.

$$\begin{bmatrix} -12 & -2 & 5 \\ -10 & -3 & 5 \\ -8 & -1 & 4 \end{bmatrix}.$$

3. E.g. $\frac{1}{\sqrt{14}}(1, 2, 3)$, $\frac{1}{\sqrt{5}}(2, -1, 0)$, $\frac{1}{\sqrt{70}}(3, 6, -5)$.

4. The plane $2x_1 + 3x_2 - 3x_3 = 0$.

5. $\frac{1}{8}$.