General Maths 2018 Name:_____

$$\begin{pmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{pmatrix} = \begin{pmatrix} b_1 \\ b_2 \\ \vdots \\ b_n \end{pmatrix}$$

Matrices

Key Knowledge Task

Concept	Exercises	Bound Reference
How to work with **matrices**. Introduction and Terminology	**Exercise 5A** **Entry:** 1, 2abc, 4abc, 6, 8ab ▢ **Expected:** 1, 2abc, 6abc, 8abcd ▢ **Expected +:** 1, 2abc, 6abc, 8abcd ▢	Concept ▢ How to ▢ Example(s) ▢
Use matrices to model practical elements.	**Exercise 5B** **Entry:** 1a, 2, 3acd ▢ **Expected:** 1ab, 2, 3acd ▢ **Expected +:** 1ab, 2, 3acd ▢	Concept ▢ How to ▢ Example(s) ▢
Adding and Subtracting Matrices	**Exercise 5C** **Entry:** 1aceg 2ace, 3 **Skill Sheet:** 1 & 2 ▢ **Expected:** 1ac 2aceg, 3, 4 **Skill Sheet:** 1, 2 & 3 ▢ **Expected +:** 1ac 2aceg, 3, 4 **Skill Sheet:** 1, 2, 3 & 4 ▢	Concept ▢ How to ▢ Example(s) ▢
Scalar Multiplication; multiplying a matrix by a number	**Exercise 5D** **Entry:** 1ace, 2ace,3ab, 4a, 5 ▢ **Expected:** 1ac, 2ace,3ab, 4ac, 5 ▢ **Expected +:** 1ac, 2ace,3ab, 4a, 5, 6 ▢	Concept ▢ How to ▢ Example(s) ▢
Rules and Application of Matrix Multiplication;	**Exercise 5E** **Entry:** 1ab, 2abc, 3a, 4adg, 5adg,7ab, ▢ **Expected:** 2ab, 3a, 4ad, 5ad,7ab, 8ab, 9a ▢ **Expected +:** 2ab, 3a, 4ad, 5ad,7ab, 8ab, 9a ▢	Concept ▢ How to ▢ Example(s) ▢
Application of Matrices	**Exercise 5F** **Entry:** 1, 2, 5, 7 ▢ **Expected:** 2, 4, 6, 7 ▢ **Expected +:** 2, 4, 6, 7,8 ▢	Concept ▢ How to ▢ Example(s) ▢
Communication and Connections	**Exercise 5G** **Entry:** 1, 2a, 3a, 4ab ▢ **Expected:** 1, 2ab, 3a, 4ab, 5abc ▢ **Expected +:** 1, 2ab, 3a, 4ab, 5abc ▢	Concept ▢ How to ▢ Example(s) ▢

Identity and Inverse Matrices	**Exercise 5H** **Entry:** 1abc, 2abc **Expected:** 1abc, 2abc **Expected +:** 1,	▢ ▢ ▢	Concept ▢ How to ▢ Example(s) ▢
Solving Simultaneous equations using Matrices	**Exercise 5J** **Entry:** 1, 2, 3 **Expected:** 1, 3, 4, 6 **Expected +:** 1, 3, 4, 6	▢ ▢ ▢	Concept ▢ How to ▢ Example(s) ▢
Transition matrices and the steady state.	**Transition Matrices Questions** **Entry:** 1, 2, 3 **Expected:** 1, 2, 3 & 4 **Expected +:** 1, 2, 3, 4 & 5	▢ ▢ ▢	Concept ▢ How to ▢ Example(s) ▢
Extended Application Question	**Exercise 5K** **Entry:** 1, 2 **Expected:** 1, 2 **Expected +:** 1, 2	▢ ▢ ▢	Concept ▢ How to ▢ Example(s) ▢