

Math 1160 – Section 2.3 Answer Key

4. 2 x 2 square identity matrix

8. Entry a_{23} is -1 (row 2, column 3)
Entry a_{11} is 2 (row 1, column 1)

14.
$$\begin{bmatrix} .2 & -.5 \\ -.2 & .5 \end{bmatrix}$$

16. $[.5]$

20. Defined \rightarrow 3 x 4 matrix

22. Defined \rightarrow 1 x 1 matrix

24. Not defined

32.
$$\begin{bmatrix} 8 & -10 & 2 \\ -1 & 6 & 3 \\ 3 & 5 & 11 \end{bmatrix}$$

36.
$$\begin{aligned} -3x + 4y &= 1 \\ y &= 1 \end{aligned}$$

40.
$$\begin{bmatrix} 5 & -2 \\ -2 & 4 \end{bmatrix} \times \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 6 \\ 0 \end{bmatrix}$$

48a. $[15,400 \quad 16,050]$

48b. \$15,400 is the amount of monthly sales for Store 1
\$16,050 is the amount of monthly sales for Store 2

56a.
$$\begin{bmatrix} 232,000 & 260,500 \\ 86,000 & 97,500 \\ 42,000 & 47,000 \end{bmatrix}$$

56b. 86,000 sick males

56c. 47,000 female carriers