Worksheet Answers - Working with Matrices

1 a. $\begin{pmatrix} 11 & -4 \\ 24 & 4 \end{pmatrix}$

b. $\begin{pmatrix} 24 & 6 & -24 \\ 6 & -1 & -1 \\ 16 & 0 & -8 \end{pmatrix}$

c. product not possible

d. $\begin{pmatrix} 0 & -14 & 9 & 14 \\ 8 & -6 & 18 & 20 \end{pmatrix}$

2 a. $\begin{pmatrix} \frac{2}{15} & \frac{7}{45} \\ \frac{1}{15} & \frac{-4}{45} \end{pmatrix}$ b. $\begin{pmatrix} \frac{3}{5} & \frac{1}{5} \\ \frac{-2}{5} & \frac{1}{5} \end{pmatrix}$

3. $\begin{pmatrix} -\frac{5}{6} & \frac{1}{2} \\ -\frac{1}{3} & 0 \end{pmatrix}\begin{pmatrix} 0 & -3 \\ 2 & -5 \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$

Yes, the given matrices are inverses