

Student Name: _____

Score: _____

Scalar Multiplication of matrices

Sheet 1

$$6 \begin{bmatrix} -3 & 2 & 1 \\ 7 & 8 & -5 \\ 4 & 6 & -9 \end{bmatrix} =$$

$$-9 \begin{bmatrix} 7 & 4 & -3 \\ 9 & -5 & 6 \end{bmatrix} =$$

$$\frac{2}{3} \begin{bmatrix} 9 & 21 \\ -6 & 13 \end{bmatrix} =$$

$$3 \begin{bmatrix} 12 & 17 \\ -16 & 9 \end{bmatrix} =$$

$$\frac{-4}{7} \begin{bmatrix} -22 \\ 49 \\ 35 \end{bmatrix} =$$

$$7 \begin{bmatrix} 11 \\ -5 \\ 7 \end{bmatrix} =$$

$$4 \begin{bmatrix} 21 \\ 8 \end{bmatrix} =$$

$$\frac{3}{4} \begin{bmatrix} 12 & -8 & \frac{8}{3} \\ -16 & 36 & -32 \\ \frac{20}{9} & 5 & 2 \end{bmatrix} =$$

$$-5 \begin{bmatrix} 6 & -7 \\ 3 & 8 \\ -4 & 12 \end{bmatrix} =$$

$$8[3 \quad -9 \quad 17] =$$

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Answer key

Scalar Multiplication of matrices

Sheet 1

$$\begin{bmatrix} -18 & 12 & 6 \\ 42 & 48 & -30 \\ 24 & 36 & -54 \end{bmatrix}$$

$$\begin{bmatrix} -63 & -36 & 27 \\ -81 & 45 & -54 \end{bmatrix}$$

$$\begin{bmatrix} 6 & 14 \\ -4 & \frac{26}{3} \end{bmatrix}$$

$$\begin{bmatrix} 36 & 51 \\ -48 & 27 \end{bmatrix}$$

$$\begin{bmatrix} \frac{88}{7} \\ -28 \\ -20 \end{bmatrix}$$

$$\begin{bmatrix} 77 \\ -35 \\ 49 \end{bmatrix}$$

$$\begin{bmatrix} 84 \\ 32 \end{bmatrix}$$

$$\begin{bmatrix} 9 & -6 & 2 \\ -12 & 27 & -24 \\ \frac{5}{3} & \frac{15}{4} & \frac{3}{2} \end{bmatrix}$$

$$\begin{bmatrix} -30 & 35 \\ -15 & -40 \\ 20 & -60 \end{bmatrix}$$

$$[24 \quad -72 \quad 136]$$