

Scalar Multiplication with Matrices
02/29/2012

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and select the correct answer.**

1. Multiply the matrix by the scalar.

$$3 \begin{bmatrix} 5 & 12 \\ -8 & -9 \end{bmatrix}$$

A. $\begin{bmatrix} 8 & 15 \\ -5 & -6 \end{bmatrix}$

B. $\begin{bmatrix} 15 & 36 \\ -24 & -27 \end{bmatrix}$

C. $\begin{bmatrix} 15 & 36 \\ 24 & 27 \end{bmatrix}$

D. $\begin{bmatrix} 8 & 15 \\ -11 & -12 \end{bmatrix}$

2. Multiply the matrix by the scalar.

$$-\frac{1}{2} [14 \quad 6 \quad -8]$$

A. $\left[13\frac{1}{2} \quad 5\frac{1}{2} \quad -8\frac{1}{2} \right]$

B. $[-7 \quad -3 \quad 4]$

C. $[-7 \quad -3 \quad -4]$

D. $[7 \quad 3 \quad -4]$

3. Multiply the matrix by the scalar.

$$-4 \begin{bmatrix} -\frac{1}{4} & \frac{3}{4} \\ \frac{1}{2} & -2 \\ -3 & 1 \end{bmatrix}$$

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

B. $\begin{bmatrix} -4\frac{1}{4} & -3\frac{1}{4} \\ -3\frac{1}{2} & -6 \\ -7 & -3 \end{bmatrix}$

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

D. $\begin{bmatrix} -4\frac{1}{4} & -3\frac{1}{2} & -7 \\ -3\frac{1}{4} & -6 & -3 \end{bmatrix}$

4. Multiply the matrix by the scalar.

$$9 \begin{bmatrix} 1 & 9 \\ 0 & 3 \\ -3 & -1 \end{bmatrix}$$

A. $\begin{bmatrix} 9 & 81 \\ 0 & 27 \\ -27 & -9 \end{bmatrix}$

B. $\begin{bmatrix} 81 \\ 0 \\ 27 \end{bmatrix}$

C. $[0 \ -243]$

D. $\begin{bmatrix} 10 & 18 \\ 9 & 12 \\ -6 & -8 \end{bmatrix}$