

1. If $A = \begin{bmatrix} -5 & -8 \\ -1 & -4 \end{bmatrix}$, find $2A$.

[A] $\begin{bmatrix} -10 & -2 \\ -16 & -8 \end{bmatrix}$

[B] $\begin{bmatrix} -3 & -6 \\ 1 & -2 \end{bmatrix}$

[C] $\begin{bmatrix} -1 & -4 \\ 3 & 0 \end{bmatrix}$

[D] $\begin{bmatrix} -10 & -16 \\ -2 & -8 \end{bmatrix}$

2. If $A = \begin{bmatrix} 5 & 1 \\ 4 & 8 \end{bmatrix}$, find $3A$.

[A] $\begin{bmatrix} 15 & 3 \\ 12 & 24 \end{bmatrix}$

[B] $\begin{bmatrix} 11 & 7 \\ 10 & 14 \end{bmatrix}$

[C] $\begin{bmatrix} 15 & 12 \\ 3 & 24 \end{bmatrix}$

[D] $\begin{bmatrix} 8 & 4 \\ 7 & 11 \end{bmatrix}$

3. If $A = \begin{bmatrix} -6 & 4 \\ 5 & -1 \end{bmatrix}$, find $4A$.

[A] $\begin{bmatrix} -2 & 8 \\ 9 & 3 \end{bmatrix}$

[B] $\begin{bmatrix} -24 & 16 \\ 20 & -4 \end{bmatrix}$

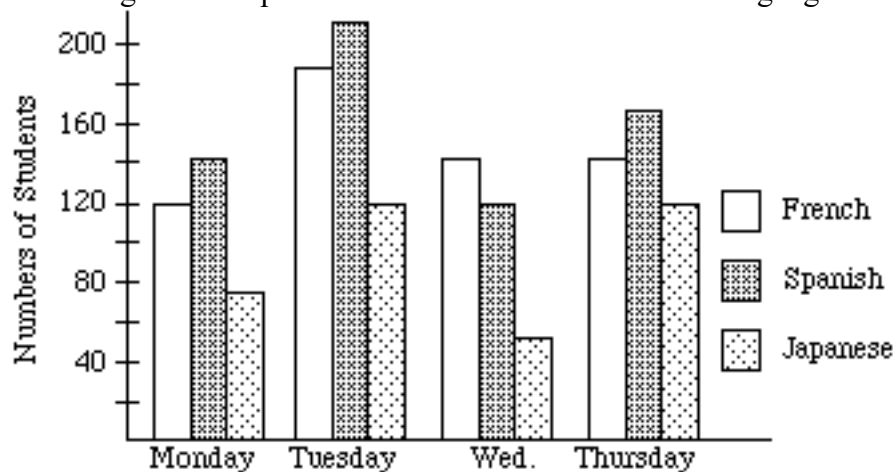
[C] $\begin{bmatrix} -24 & 20 \\ 16 & -4 \end{bmatrix}$

[D] $\begin{bmatrix} 2 & 12 \\ 13 & 7 \end{bmatrix}$

4. Find a scalar multiplication that will give this product:

$$\begin{bmatrix} -2 & 5 & -12 \\ 8 & 10 & -6 \end{bmatrix}$$

5. The school expects enrollment to increase by 15% next year. Use scalar multiplication to find a matrix that will give the expected number of students for each language each night next year.



Precalculus Practice N.VM.C.7: Matrices

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[1] D

[2] A

[3] B

[4] Answers will vary. Sample: $2 \begin{bmatrix} -1 & 2.5 & -6 \\ 4 & 5 & -3 \end{bmatrix}$

[5] Answers may vary. Sample: $\begin{bmatrix} 138 & 161 & 81 & 207 \\ 230 & 138 & 161 & 138 \\ 58 & 161 & 184 & 138 \end{bmatrix}$ or $\begin{bmatrix} 138 & 230 & 58 \\ 161 & 138 & 161 \\ 81 & 161 & 184 \\ 207 & 138 & 138 \end{bmatrix}$