Algebraic Reasoning

Unit 5, Bundle 2 Summative Assessment key

1. Which of the following shows matrix *A* multiplied by a scalar of $\frac{2}{3}$? (AR.5C)

$$A=\left[\begin{matrix}-9&18&0\\3&-6&15\end{matrix}\right]$$

* 1. $\frac{2}{3}[A]=\left[\begin{matrix}-13.5&27&0\\4.5&-9&22.5\end{matrix}\right]$
	2. $\frac{2}{3}[A]=\left[\begin{matrix}-6&12&\frac{2}{3}\\2&-4&10\end{matrix}\right]$
	3. $\frac{2}{3}[A]=\left[\begin{matrix}6&12&0\\2&4&10\end{matrix}\right]$
	4. $\frac{2}{3}[A]=\left[\begin{matrix}-6&12&0\\2&-4&10\end{matrix}\right]$
1. Which of the following scalars was matrix *K* multiplied by to create matrix *L*? (AR. 5C)

$$K=\left[\begin{matrix}36&24\\60&72\\12&18\end{matrix}\right] L=\left[\begin{matrix}27&18\\45&54\\9&13.5\end{matrix}\right]$$

1. $\frac{3}{4}$
2. $45\%$
3. $40\%$
4. $\frac{3}{5}$
5. The matrix *M* shows the prices of regular and large sizes of French fries and sodas. What does $\left(1.075\left(0.70\right)\right)[M]$ represent? (AR.5C)

$$\left[M\right]=\left[\begin{matrix}\$1.89&\$2.39\\\$0.89&\$0.99\end{matrix}\right]$$

* 1. $\left(1.075\left(0.70\right)\right)[M]$ represents the final price with a 70% discount and a 7.5% sales tax.
	2. $\left(1.075\left(0.70\right)\right)[M]$ represent the final price with a 7.5% discount and 7% sales tax.
	3. $\left(1.075\left(0.70\right)\right)[M]$ **represents the final price with a 30% discount and a 7.5% sales tax.**
	4. $\left(1.075\left(0.70\right)\right)[M]$ represents the final price with a 75¢ upcharge and a 70% sales tax.