Algebra 2 Bellwork Thursday, October 22, 2015

Solve each system of equations with matrices. Write down the two matrices you used then state the answer as an ordered pair.

1.

$5.2m - 3.5n = -1.9$

$6.1m + 2.3n = 29.8$

Matrix A: Matrix B:

Solution:

2.

$846x + 730y = 116$

$-122x + 17y = 105$ ~~105~~ -139

Matrix A: Matrix B:

Solution:

3. On Monday apples cost \$0.79 each and peaches cost \$0.89 each. On Friday apples cost \$1.05 each and peaches cost \$1.11 each. I bought the same number of apples and peaches on both days. On Monday I spent \$10.97 and on Friday I spent \$14.07. Write and solve a system of equations to find the number of apples and number of peaches purchased each day.

apples purchased =

peaches purchased =

Equations:

Algebra 2 Bellwork Thursday, October 22, 2015 Answers

Solve each system of equations with matrices. Write down the two matrices you used then state the answer as an ordered pair.

1.

$5.2m - 3.5n = -1.9$

$6.1m + 2.3n = 29.8$

Matrix A: Matrix B:

$\begin{bmatrix} 5.2 & -3.5 \\ 6.1 & 2.3 \end{bmatrix}$ $\begin{bmatrix} -1.9 \\ 29.8 \end{bmatrix}$

Solution: $(3, 5)$ m, n

2.

$846x + 730y = 116$

$-122x + 17y = 105$ ~~105~~ -139

Matrix A: Matrix B:

$\begin{bmatrix} 846 & 730 \\ -122 & 17 \end{bmatrix}$ $\begin{bmatrix} 116 \\ -139 \end{bmatrix}$

Solution: $(1, -1)$ x, y

3. On Monday apples cost \$0.79 each and peaches cost \$0.89 each. On Friday apples cost \$1.05 each and peaches cost \$1.11 each. I bought the same number of apples and peaches on both days. On Monday I spent \$10.97 and on Friday I spent \$14.07. Write and solve a system of equations to find the number of apples and number of peaches purchased each day.

A # apples purchased = 6

P # peaches purchased = 7

A $\begin{bmatrix} .79 & .89 \\ 1.05 & 1.11 \end{bmatrix}$ B $\begin{bmatrix} 10.97 \\ 14.07 \end{bmatrix}$

Equations:

$.79A + .89P = 10.97$

$1.05A + 1.11P = 14.07$