

Goal: develop an understanding of matrices.

11-10-16

Thankful Thursday: I am most thankful for my family because I have a good family

2.

	Drama Club	Chips	drinks
cookies	1	1	1
cookies	2	2	2
cookies	3	3	3
$3+4+5=12$	$8+10+12=30$	$5+3+4=12$	
$12 \div 3 = 4$	$30 \div 3 = 10$	$12 \div 3 = 4$	
4 dozen cookies averaged a year	10 packages of chips averaged a year	4 gallons of drinks averaged a year	

We organized by Club and Snacks.  
 We added up the packages from every year then divided by how many years (3 years) to get the average amount of every snack per year.

cookies	chips	drinks
1	1	1
cookies	chips	drinks
2	2	2
cookies	chips	drinks
3	3	3

$$\begin{matrix} \text{cookies} \\ \text{chips} \\ \text{drinks} \end{matrix} = \begin{bmatrix} 6 \\ 10 \\ 4 \end{bmatrix} + \begin{bmatrix} 7 \\ 6 \\ 4 \end{bmatrix} + \begin{bmatrix} 8 \\ 8 \\ 4 \end{bmatrix} \div 3 = \begin{bmatrix} 7 \\ 8 \\ 4 \end{bmatrix}$$

Drama average	Soccer average
4	7
10	8
4	4

3. Drama  $\begin{bmatrix} 4 \\ 10 \\ 4 \end{bmatrix} \times 4 = \begin{bmatrix} 16 \\ 40 \\ 16 \end{bmatrix}$  Soccer  $\begin{bmatrix} 7 \\ 8 \\ 4 \end{bmatrix} \times 4 = \begin{bmatrix} 28 \\ 32 \\ 16 \end{bmatrix}$

4. Main Street

market

Drama club  
 cookies  $4 \times 3 = 12$   
 chips  $10 \times 2.50 = 25$   
 drinks  $4 \times 2 = 8$   
 $\begin{array}{r} 12 \\ +25 \\ \hline 37 \\ +8 \\ \hline 45 \end{array}$  Drama club  
 main Street

Soccer club  
 $\begin{bmatrix} 7 \\ 8 \\ 4 \end{bmatrix} \times 3 = \begin{bmatrix} 21 \\ 24 \\ 12 \end{bmatrix}$   
 $\begin{array}{r} 21 \\ +20 \\ \hline 41 \\ +8 \\ \hline 49 \end{array}$  Soccer club  
 main Street

Grandpa's grocery

Drama club  
 cookies  $4 \times 4 = 16$   
 chips  $10 \times 2 = 20$   
 drinks  $4 \times 1.50 = 6$   
 $\begin{array}{r} 16 \\ +20 \\ \hline 36 \\ +6 \\ \hline 42 \end{array}$  Drama club  
 grandpa's grocery

Soccer club  
 $\begin{bmatrix} 7 \\ 8 \\ 4 \end{bmatrix} \times 4 = \begin{bmatrix} 28 \\ 32 \\ 16 \end{bmatrix}$   
 $\begin{array}{r} 28 \\ +16 \\ \hline 44 \\ +6 \\ \hline 50 \end{array}$  Soccer club  
 grandpa's grocery

I organized by club and multiplied by price. It would be better for the drama club to get there snacks at grandpa's grocery and it would be better for the soccer club to get there supplies at main street market.