

Algebra II Pre-AP/GT
Unit 3B - Matrices
October 10 to October 23

Date	Topic	Assignment
Fri 10/10	3.5 Adding/Subtract Matrices	Pg. 191 (4-18 even, 24-27)
Mon 10/13	3.6 Multiplying Matrices	Pg. 199 (12, 14-18 all, 22, 24, 30, 31)
Tues 10/14	3.7 Find the Determinants of Matrices	Pg. 207 (8-18 even, 22-26 even, 40) Worksheet
Wed 10/15	PSAT	Complete unfinished work. Don't be lazy.
Thurs 10/16	3.8 Find and use inverse to solve Matrix Equations (Calculator)	Pg. 214 (4-10 even, 14-18 even, 20-24 even)
Fri 10/17	3.8 Solve Systems with Matrices (Calculator) End of 1st Term	Pg. 215 (26-32 even, 36-40 even, 42)
Mon 10/20	3.8 Solve Systems with Matrices (Calculator)	Worksheet
Tues 10/21	3.8 Solve Systems with Matrices (Calculator)	continued
Wed 10/22	Review - Early Dismissal	
Thurs 10/23	Test 2.1 - Matrices	

Tuesday, October 14

Determinants

Solve for "x"

1. $\begin{vmatrix} 2 & x \\ 5 & -3 \end{vmatrix} = 24$

2. $\begin{vmatrix} 4 & x & -2 \\ -x & -3 & 1 \\ -6 & 2 & 3 \end{vmatrix} = -3$

Find the Determinant

3. $\begin{vmatrix} k-1 & 2 \\ 4 & k-3 \end{vmatrix}$

4. $\begin{vmatrix} k & -3 & 9 \\ 2 & 4 & k+1 \\ 1 & k^2 & 3 \end{vmatrix}$

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Monday, October 20

Matrix Word Problems

Matrix Word Problems

Do all the work on a separate sheet of paper

Show all steps for each problem

- | | |
|---|--|
| a) Define the variables | b) Write the system of equations |
| c) Write the matrix equation | d) Solve on a calculator and write the answer matrix |
| e) Write a complete sentence answering the question | |

- 1) Mark was preparing to go on vacation and he needed some clothes. He compared prices of various arrangements. He could buy 2 sweaters, 3 pairs of pants and 3 shirts for \$136.50. Another arrangement would be 3 sweaters, 2 pairs of pants, and 2 shirts for \$131. He could also buy 4 sweaters, 4 pairs of pants, and 2 shirts for \$186. Find the price of each item.

- 2) Leslie bought a fruit basket for \$10.14. Her basket contained 4 apples, 10 bananas and 6 pears. Kristy bought a different fruit basket for \$8.26 and it had 4 apples, 4 bananas and 5 pears. Kim's fruit basket had 6 apples, 5 bananas, and 6 pears. She paid \$10.61 for her basket. Jason thought it was really stupid to buy a fruit basket. He only wanted one piece of each fruit but needed to know the price of each first. How much will Jason pay for one apple, one banana and one pear?

- 3) A bin in a nut store contains 100 lb of a mixture of almonds, peanuts, and raisins. Almonds sell for \$1.89/lb., peanuts for \$1.58/lb and raisins for \$1.39/lb. If the mixture contains twice as many pounds of peanuts as almonds, and the total value of the almonds and raisins in the mixture is \$93.40, how many pounds of each item does the mixture contain?

- 4) Laura has a total of 16 coins: quarters, dimes and nickels. The total value of her money is \$1.80. The number of nickels is the sum of the number of dimes and quarters. How many of each coin does she have?

- 5) There once was a man who was a collector of precious metal. At the metal store he can purchase gold, silver, platinum, zinc and copper. One day, the man entered the store and bought two pieces each of gold and copper, and three pieces each of silver and zinc. This purchase cost him \$88. The next day, he entered the store and bought two pieces of silver, three pieces of platinum, six pieces of zinc, and one piece of copper. This purchase cost him \$121. The next day, he bought three pieces of gold, three pieces of platinum and one piece each of zinc and copper. He paid \$116. One week later, he bought two pieces each of gold and zinc and three pieces each of silver and copper. This cost him \$87. Finally, he bought one type of each metal and paid \$56. What was the price of each metal?