Algebra

Name_____

Topic 4 Systems of Equations Review

Date_____ Period_____

Basic: Solve each system using the best method for how it is setup.

1) $-4x - 8y = -16$
   $y = -5x + 11$

2) $5x + 7y = 5$
   $y = -7x + 7$

3) $8x + 8y = 16$
   $-4x - 8y = 16$

4) $10x + 4y = 6$
   $-2x + 4y = -30$

Complex: Solve each system using the best method for how it is setup.

5) $-2x - 10y = -16$
   $3x - 20y = -11$

6) $4x - 5y = 17$
   $-6x + 9y = -27$

7) $x + 8y = 1$
   $3x + 24y = 5$

8) $2x - 5y = -15$
   $2x + y = -9$

Apply: Write and solve a system of equations using the best method for how it is setup.

9) Rob and Mike each improved their yards by planting grass sod and geraniums. They bought their supplies from the same store. Rob spent $46 on 4 ft² of grass sod and 1 geranium. Mike spent $189 on 11 ft² of grass sod and 9 geraniums. What is the cost of one ft² of grass sod and the cost of one geranium?

10) Jenny and Perry are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Jenny sold 9 rolls of plain wrapping paper and 11 rolls of shiny wrapping paper for a total of $290. Perry sold 3 rolls of plain wrapping paper and 1 roll of shiny wrapping paper for a total of $46. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

11) Rob's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 6 adult tickets and 1 child ticket for a total of $68.50. The school took in $146.30 on the second day by selling 12 adult tickets and 5 child tickets. Find the price of an adult ticket and the price of a child ticket.

12) Arjun and Amy are selling pies for a school fundraiser. Customers can buy blueberry pies and pumpkin pies. Arjun sold 11 blueberry pies and 7 pumpkin pies for a total of $178.50. Amy sold 7 blueberry pies and 1 pumpkin pie for a total of $48.30. Find the cost each of one blueberry pie and one pumpkin pie.

Answers to Topic 4 Systems of Equations Review

1) $(2, 1)$

2) $(1, 0)$

3) $(8, -6)$

4) $(3, -6)$

5) $(3, 1)$

6) $(3, -1)$

7) No solution

8) $(-5, 1)$

9) ft² of grass sod: $9, geranium: $10

10) roll of plain wrapping paper: $9, roll of shiny wrapping paper: $19

11) adult ticket: $10.90, child ticket: $3.10

12) blueberry pie: $4.20, pumpkin pie: $18.90