Name : _____ Score : _____

Teacher : _____ Date : _____

Solving Algebraically 2 Variable Systems

Use elimination to solve each system.

1) $-3x + 8y = -70$
$3x - 2y = 4$

2) $7x - 4y = -39$
$-3x + 3y = 18$

3) $x - 8y = -107$
$4x + 7y = 40$

4) $-6x - 8y = 76$
$7x + 6y = -82$

5) $-3x - 3y = -18$
$-5x - 5y = -30$

6) $-2x + y = 17$
$-8x + 4y = 68$

7) $6x + y = 36$
$x - y = 13$

8) $-x - 6y = 33$
$-8x - 4y = -44$

9) $6x + 4y = 0$
$3x + 6y = 24$

10) $7x + 7y = -63$
$-5x - 5y = 86$

11) $-6x - 6y = 12$
$4x + 4y = -8$

12) $8x + 8y = 24$
$-4x - 4y = 72$

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Systems of 2 Equations Word Problems

1) The sum of a particular two digit number is 13. If this number's digits are reversed, the number is decreased by 27. What is this number?

2) Tickets at a particular movie theater have different rates for adults and children. On Tuesday the theater sold 2 adult tickets and 7 child tickets for $79. The next day, the theater sold 6 adult tickets and 8 children tickets for $146. What is the price for the adult ticket and the price for the child ticket?

3) Tickets to the fair cost $7 for children and $10 for adults. On Wednesday 182 people enter the fair and they collected $1541. What number of children and what number of adults attended?

4) Find two numbers whose sum is 58 and whose difference is 6.