**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_**

**Solve Systems of Equations by Elimination**

**Worksheet 421**

**Solve each system of equations by eliminating a variable.**

**1.** 2*x* + 3*y* = 6 **2.** 2*m* + 3*n* = 4 **3.** 3*a* – *b* = 2

 *x* + 2*y* = 5 –*m* + 2*n* = 5 *a* + 2*b* = 3

**4.** 4*x* + 5*y* = 6 **5.** 4*c* – 3*d* = 22 **6.** 3*x* – 4*y* = –9

 6*x* – 7*y* = –20 2*c* – *d* = 10 *x* + 3*y* = –10

**7.** 4*s* – *t* = 9 **8.** 4*a* – 3*b* = –8 **9.** 2*x* + 2*y* = 5

 5*s* + 2*t* = 8 2*a* + 2*b* = 3 4*x* – 4*y* = 10

**10.** 6*x* – 4*y* = –8 **11.** 4*x* + 2*y* = –5 **12.** 2*x* + *y* = 3.5

 4*x* + 2*y* = –3 –2*x* – 4*y* = 1 –*x* + 2*y* = 2.5

**13.** GARDENING The length of Sally’s garden in 4 meters greater than 3 times the width. The perimeter of her garden is 72 meters. What are the dimensions of Sally’s garden?

**14.** Anita is 4$\frac{1}{2}$ years older than Basilio. Three times Anita’s age added to six times Basilio’s age is 36. How old are Anita and Basilio?

**Worksheet 422**

**Solve the system of equations using the method of your choice.**

1. *x* + 2*y* = 3 **2.** *m* + 6*n* = –8 **3.** *a* – *b* = 6

*x* + *y* = 1 *m* = 2*n* + 8 *a* = 2*b* + 7

**4.** 4*x* + *y* = 15 **5.** 3*c* – *d* = 14 **6.** *x* + 2*y* = –9

 –*x* – 3*y* = –12 *c* – *d* = 2 *y* = 4*x*

**7.** 4*x* = 2*y* – 10 **8.** *x* = –2*y* **9.** 2*s* – 3*t* = 42

 *x* + 2*y* = 5 4*x* + 4*y* = –10 3*s* + 2*t* = 24

**10.** 4*a* – 4*b* = –10 **11.** 4*x* + 10*y* = –6 **12.** 2*x* = *y* – 3

 2*a* + 4*b* = –2 –2*x* – 10*y* = 2 –*x* – *y* = 0