Name: _____ Date: _____

BLM 9–6

Section 9.2 Extra Practice

1. Solve using elimination.

a) $x + y = 4$
$x - y = 10$

b) $4x - 5y = -28$
$4x - y = 4$

c) $5x - 3y - 2 = 0$
$-4x + 3y - 2 = 0$

2. Solve using elimination.

a) $5 = 6x + 2y$
$2y = x + 5$

b) $y + 6 = x$
$y = -3x + 2$

c) $8y = 2x + 8$
$8y - 3x - 4 = 0$

3. Solve the following systems of equations by elimination. Verify your answers.

a) $2x + y = 15$
$5x - 6y = -22$

b) $2x - 15y = 7$
$x - 6y = 4$

c) $3x + 2y = 0$
$8x + 7y = 5$

4. Solve using the elimination method.

a) $\frac{1}{2}x - \frac{3}{2}y = -4$
$x + 7y = 12$

b) $8x + y = 2$
$3x + \frac{1}{4}y = 0$

c) $\frac{2}{3}x + \frac{5}{6}y = 1$
$\frac{1}{3}x + \frac{4}{3}y = -5$

5. Solve using the elimination method.

a) $-3(y - x) = 14 - 4y$
$2x + 26 = 4(x + y)$

b) $2(x + y) = -2 - 4x$
$14x + 27 = 3x + y$

c) $y - 2 = 5(x + 2)$
$y + 2 = 3(x + 4)$

6. Solve, if possible, by elimination.

a) $3x - y = -5$
$6x - 2y = 0$

b) $2x - 4y = 6$
$x - 2y = 3$

c) $x + y + 12 = 0$
$3y = -3x + 12$

7. The difference of two numbers is 18. Their sum is 42. Determine the numbers.

8. A motorboat travels 4 km downstream in 0.5 h, and travels the same distance upstream in 2 h. Determine the speed of the boat in still water.

9. Max invested $15 000 in two different funds. One earned 6% interest in the first year and the other earned 8%, for a total of $1100 in interest. Determine how much he invested in each fund.

10. The perimeter of a rectangle is 76 m. The width is doubled and the length is halved. The new rectangle has a perimeter of 62 m. Determine the dimensions of the original rectangle.