

**Practice B**

For use with pages 177–184

**Decide whether the given ordered triple is a solution of the system.**

1.  $(0, 0, 3)$

$3x + 4y + z = 3$

$-2x + 7y + 2z = 6$

$-10x + 12y - z = -3$

2.  $(-1, -2, 5)$

$2x + y - 5z = -29$

$6x + 4y - z = -19$

$x + y + 2z = 7$

3.  $(0, 0, 0)$

$x + y + z = 0$

$2x + 3y - z = 0$

$3x + y - 4z = 1$

4.  $(-1, -3, -2)$

$x - 5y + 6z = 2$

$3x - y + 8z = -16$

$4x + 2y - 7y = 4$

5.  $(5, 7, 1)$

$x + y + z = 13$

$2x - 7y + 5z = -34$

$3x + y + 4z = 25$

6.  $(-4, 8, -9)$

$x + 2y - 3z = 39$

$2x + y - 7z = -63$

$3x + y + z = -13$

**Use any algebraic method to solve the system.**

7.  $x - y + 2z = 4$

$x - 3z = 1$

$2y - z = -15$

8.  $x + y - z = 6$

$2y - 3z = 4$

$-y + 2z = -1$

9.  $x + 2y - z = 3$

$x - 3y + z = -1$

$-x + y - 3z = 5$

10.  $x - 2y - z = 3$

$x + y + 2z = 9$

$2x + 3y + z = 0$

11.  $2x + 3y + 2z = 1$

$x + 4y - z = 7$

$3x + y + 3z = -2$

12.  $x - 2y + 3z = -7$

$4x + 5y + z = 4$

$-x + y - 2z = 5$

13.  $8x + 2y - z = -25$

$3x - 3y + 5z = 10$

$-5x + 6y - 2z = 17$

14.  $x + 5y - 2z = -16$

$-x - 7y + 3z = 23$

$3x - 10y - 5z = 5$

15.  $3x + 2y - 8z = 4$

$6x + 4y - 16z = 8$

$12x + 8y - 32z = 16$

16. **Pet Store Supplies** A pet store receives a shipment of pet foods at the beginning of each month. Over a three month period, the store received 1770 pounds of dog food, 1165 pounds of cat food, and 365 pounds of bird seed. Write and solve a system of equations to find the number of pounds of pet food in each of the three shipments.

<i>Pet food</i>	<i>1st shipment</i>	<i>2nd shipment</i>	<i>3rd shipment</i>
Dog food	60%	50%	50%
Cat food	25%	35%	45%
Bird seed	15%	15%	5%

17. **Movie Rental Store** The table below shows the percent of comedies, drama, and action videos available at a video store. Write and solve a system of equations to find out how many comedies, dramas, and action movies are at the store. Assume that the store has a collection of 3405 general videos to be rented, 1070 children's videos to be rented, and 1225 videos for sale.

<i>Store section</i>	<i>Comedy</i>	<i>Drama</i>	<i>Action</i>
General rental	55%	65%	60%
Children's rental	25%	10%	20%
Videos for sale	20%	25%	20%