

## Module 1 Review Part 2

**Write and Solve the following two-step equations.**

- 1) Jessica had 90 dollars to spend on 7 books. After buying them she had 13 dollars. How much did each book cost?
- 2) The sum of three consecutive numbers is 81. What is the smallest of the three numbers?
- 3) Oceanside Bike Rental Shop charges 13 dollars plus 6 dollars an hour for renting a bike. Nancy paid 37 dollars to rent a bike. How many hours did she pay to have the bike checked out?
- 4) On Monday, 189 students went on a trip to the zoo. All 4 buses were filled and 5 students decided to travel on their own to the zoo. How many students were in each bus?

**Solve each system by elimination.**

- 5)  $2x - 3y = -12$   
 $-2x + 4y = 22$
- 6)  $3x - 10y = 9$   
 $-3x + 6y = 3$
- 7)  $-9x + 4y = 25$   
 $-3x - 8y = -29$
- 8)  $3x - 7y = 15$   
 $-8x + 14y = -26$
- 9)  $-9x + 7y = 0$   
 $10x - 9y = -11$
- 10)  $7x - 7y = 0$   
 $-2x + 4y = -12$

**Solve each system by substitution.**

- 11)  $-3x + 2y = 14$   
 $y = 2x + 11$
- 12)  $2x - 2y = -4$   
 $y = 6x + 7$

$$\begin{aligned} 13) \quad & -2x + y = -7 \\ & 4x - 6y = -6 \end{aligned}$$

$$\begin{aligned} 14) \quad & 2x + 7y = 21 \\ & x - 2y = -6 \end{aligned}$$

$$\begin{aligned} 15) \quad & 6x + 6y = -24 \\ & 8x + 4y = -24 \end{aligned}$$

$$\begin{aligned} 16) \quad & 5x - y = 10 \\ & 8x - 3y = 9 \end{aligned}$$

- 17) There are two water tanks. The first tank starts with 5 gallons of water and is filling at a rate of 10 gallons per minute. The second tank starts with 200 gallons and is emptying at a rate of 5 gallons per minute. How long will it take in minutes for both tanks to have the same amount of water? How much water will be in both tanks at that time?
- 18) Kathryn and Pranav are selling flower bulbs for a school fundraiser. Customers can buy packages of tulip bulbs and packages of crocus bulbs. Kathryn sold 8 packages of tulip bulbs and 8 packages of crocus bulbs for a total of \$160. Pranav sold 7 packages of tulip bulbs and 4 packages of crocus bulbs for a total of \$92. What is the cost each of one package of tulips bulbs and one package of crocus bulbs?
- 19) The senior classes at High School A and High School B planned separate trips to the indoor climbing gym. The senior class at High School A rented and filled 5 vans and 3 buses with 127 students. High School B rented and filled 4 vans and 6 buses with 206 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.
- 20) Imani and Willie are selling fruit for a school fundraiser. Customers can buy small boxes of oranges and large boxes of oranges. Imani sold 2 small boxes of oranges and 2 large boxes of oranges for a total of \$40. Willie sold 8 small boxes of oranges and 3 large boxes of oranges for a total of \$95. Find the cost each of one small box of oranges and one large box of oranges.
- 21) A lasagna is removed from the oven at 425 degrees Fahrenheit and placed on the counter to cool at a rate of 5 degrees per minute. At the same time a frozen pie is removed from the freezer at 5 degrees Fahrenheit and begins to warm by 1 degree per minute. How long does it take for both the lasagna and the pie to reach the same temperature? What temperature do they reach?