Master 6.22

Extra Practice 5

Lesson 6.5: Using Different Methods to Solve Equations

1. Use algebra to solve each equation. Verify each solution.

a) $\frac{x}{7} = 4$ **b)** $\frac{x}{5} = 5$ **c)** $\frac{x}{12} = 1$

2. Solve each equation using the method of your choice.

a) $x + 11 = 23$ **b)** $x - 9 = 17$ **c)** $7x = 77$

d) $\frac{x}{5} = 8$ **e)** $2x + 13 = 31$ **f)** $3x - 5 = 16$

3. A banquet hall charged $120 for the rental of the hall, plus $14 for each meal served. The total bill for the banquet was $610.
How many people attended the banquet?
Write, then solve, an equation to answer this question. Verify the solution.

4. Marshall baked 33 cookies. He kept five for himself, and shared the rest equally among his friends. Each friend got 4 cookies.
Write, then solve, an equation you could use to find the number of friends who got cookies.

5. Write, then solve, an equation to answer each question. Verify the solution.
Ms. Shapiro was organizing her class of 38 students into groups.

a) She divided the class into 8 equal groups and had 6 students left over.
How many students were in each group?

b) She divided the students into 5 equal groups and had 3 students left over.
How many students were in each group?

6. Write, then solve, an equation to answer each question. Verify each solution.
At Rose's Garden Centre, a 5-kg bag of fertilizer costs $8 and a 10-kg bag costs $14.

a) Rose sold $202 worth of fertilizer. She sold six 5-kg bags.
How many 10-kg bags did she sell?

b) Rose sold $206 worth of fertilizer. She sold five 10-kg bags.
How many 5-kg bags did she sell?

7. Write, then solve, an equation to answer each question. Verify each solution.

a) One more than three times a number is 28. What is the number?

b) Four less than five times a number is 31. What is the number?

c) Twice a number increased by seven is 29. What is the number?

d) Seventeen added to three times a number is 53. What is the number?