

## 2-3 Notes

### ***Solving Multi-Step Equations***

When solving multi-step equations, we ‘undo’ operations by working ‘backwards.’ Reverse the usual order of operations as you work.

**Example 1:** A number is divided by 2, and then 8 is subtracted from the quotient. The result is 16. What is the number?

#### **Exercises**

**Solve each problem.**

1. A number is divided by 3, and then 4 is added to the quotient.  
The result is 8. Find the number.
2. A number is multiplied by 5, and then 3 is subtracted from the product.  
The result is 12. Find the number.
3. Eight is subtracted from a number, and then the difference is multiplied by 2.  
The result is 24. Find the number.
4. **CAR RENTAL** Angela rented a car for \$29.99 a day plus a one-time insurance cost of \$5.00. Her bill was \$124.96.  
For how many days did she rent the car?

## 2-3 Notes *(continued)*

### Exercises

Solve each equation. Check your solution.

1.  $\frac{7}{8}p - 4 = 10$

2.  $\frac{g}{-5} + 3 = -13$

3.  $\frac{4b + 8}{-2} = 10$

4.  $-4 = \frac{7x - (-1)}{-8}$

Write an equation and solve each problem.

5. Find three consecutive integers whose sum is 96.

6. Find three consecutive integers whose sum is  $-93$ .