Section 1.6: SUBTRACTION OF REAL NUMBERS

When you are done with your homework you should be able to...

- π Subtract real numbers
- π Simplify a series of additions and subtractions
- π Use the definition of subtraction to identify terms
- π Use the subtraction definition to simplify algebraic expressions
- π Solve problems involving subtraction

WARM-UP:

Simplify:

1. $\frac{1}{2}(2x-7)+3x$

2. $-(-x+5)+3(2)(5x-1)$

DEFINITION OF SUBTRACTION

For all real numbers a and b,

To subtract _____ from _____, _____ the _____ (or additive

inverse) of ____ to ____. The result of subtraction is called the

_____.

A PROCEDURE FOR SUBTRACTING REAL NUMBERS

1. Change the subtraction operation to _____.

2. Change the _____ of the number being _____.

3. _____.

Example 1: Subtract.

1. $-16-(-9)$

3. $-6-32$

2. $16-20$

4. $10.2-0.2-(-5.1)$
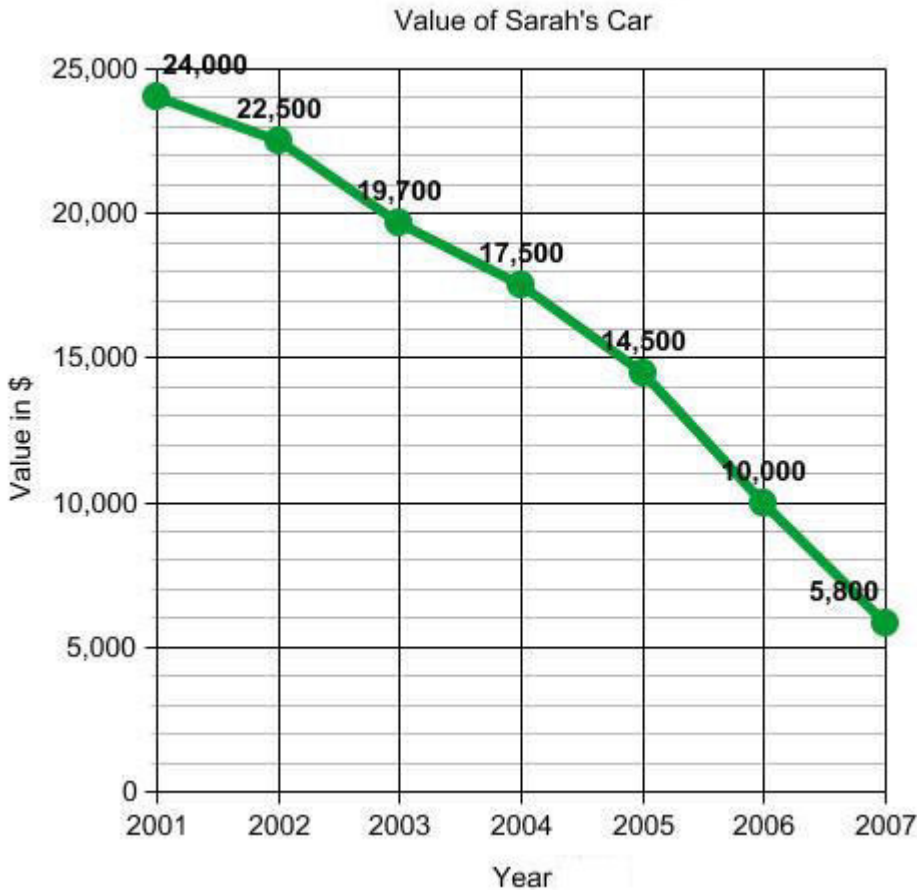
Example 2: Simplify.

1. $3(4x)-(2x-21)$

2. $9x+(x+5)-2(x-11+3y)$

APPLICATIONS

The line graph below illustrates the value of Sarah's car in dollars from the year 2001 to the year 2007.

Value of Sarah's Car

1. How much was Sarah's car worth in 2005?

2. How much more was Sarah's car worth in 2002?