Section 7.3

READING AND SELF-DISCOVERY QUESTIONS 7.3

1. If one or both sides of an equation contain parentheses, what property should you use to remove the parentheses?

   Distributive property

2. What operation is used with the distributive property?

   Multiplication

CRITICAL THINKING QUESTIONS 7.3

1. In order to remove parentheses from a problem, what is the most common property used?

   Distributive property

2. Why is it important to pay attention to the sign of each term within parentheses? Consider the expression $-3x(x-2)$ when formulating your answer but write your answer in general terms.

   You must make sure to convert the sign of each term within the parentheses when distributing a negative number or a negative variable term.

DEMONSTRATE YOUR UNDERSTANDING 7.3

1. Write an equation in this format: a trinomial minus a binomial equals an integer. Solve the equation.

   Sample:

$$2x^2 - 3x + 4 - \left(2x^2 - 3x\right)$$

$$= 2x^2 - 3x + 4 - 2x^2 + 3x$$
$$= 2x^2 - 2x^2 - 3x + 3x + 4$$
$$= 4$$

IDENTIFY AND CORRECT THE ERRORS 7.3

In the second column, identify the error(s) you find in each of the following worked solutions. Describe the error made in the second column. Solve the problem correctly in the third column.

Problem	Describe Error	Correct Process
1. Solve: $-3(4x-7)=3$ **Worked Solution** *(What is wrong here?)* $-3(4x-7)=3$ $-12x-21=3$ $+21 \quad +21$ $-12x=24$ $\boldsymbol{x=-2}$	**Multiplication is incorrect.** **$-3 \cdot (-7) = 21$ not $= -21$**	$-3(4x-7)=3$ $-12x+21=3$ $-21=-21$ $-12x=-18$ $x=\frac{-18}{-12}$ $x=\frac{3}{2}$
Problem	**Describe Error**	**Correct Process**
2. Solve: $4(x-4)=20$ **Worked Solution** *(What is wrong here?)* $4(x-4)=20$ $4x-4=20$ $+4 \quad +4$ $4x=24$ $\boldsymbol{x=6}$	**Student failed to use the Distributive Property in order to clear the parentheses and instead simply removed them.**	$4(x-4)=20$ $4x-16=20$ $4x=36$ $x=9$