Name _____ Class _____ Date _____

Performance Tasks

Chapter 1

TASK 1

In each sentence below, circle the key words or phrases that indicate a mathematical operation and write the symbol for the operation above the words or phrases. Write an equation for each sentence.

a. A number multiplied by 8 and divided by four gives 7 more than the number.

b. Five times a number decreased by eight is equal to thirty-two.

c. The sum of the square of a number and a second number is forty-two.

d. One-third of a number added to itself equals three times the difference of the number and seven.

TASK 2

Two students write the following expressions to answer an exercise:

$7 + 4(5 - 3)^2 + \frac{9}{3}$ and $\frac{9}{3} + (5 - 3)^2 \cdot 4 + 7$

a. Simplify the two expressions. List each step you use.

b. Explain the similarities in the steps.

c. Make up another expression that uses the same numbers and operations, but has a different value. Then simplify the expression, listing each step.

Performance Task (continued)

Chapter 1

TASK 3

a. A friend is having trouble comparing rational numbers. Write an explanation that will tell your friend how to decide if a rational number is greater than, less than, or equal to another rational number. Consider positive and negative numbers in your answer.

b. Mason works for $5 per hour on weekends doing yard work. Write a rule for the relationship between hours worked and total income.

TASK 4

A friend has asked you to explain commutative properties to him. After you explain the commutative properties for addition and multiplication, he asks you about commutative properties for subtraction and division.

a. Use examples to show that the operations of subtraction and division are not commutative.

b. For your example that shows subtraction is not commutative, rewrite it as addition so that the order of the terms can be changed without affecting the result.