

## 1

**Family Letter****Dear Parent or Guardian:**

One of the most frustrating things for young mathematics students is that they often do not see how what they learn in class will be useful to them in the real world. This math class will make every effort to relate topics we learn in the classroom to the world outside the classroom.

In **Chapter 1, Introduction to Algebra and Functions**, your child will learn about powers and exponents, squares and square roots, operations, variables and expressions, equations, properties, sequences, and functions. In the study of this chapter, your child will complete a variety of daily classroom assignments and activities and possibly produce a chapter project.

By signing this letter and returning it with your child, you agree to encourage your child by getting involved. Enclosed is an activity you can do with your child that practices how the math we will be learning in Chapter 1 might be tested. You may also wish to log on to **glencoe.com** for self-check quizzes and other study help. If you have any questions or comments, feel free to contact me at school.

Sincerely,

Signature of Parent or Guardian \_\_\_\_\_ Date \_\_\_\_\_

**1 Family Activity****State Test Practice**

Fold the page along the dashed line. Work each problem on another piece of paper. Then unfold the page to check your work.

1. Simplify the expression shown below:

$$7 + 4(12 \cdot 3) - 4^2$$

What is the value of the above expression?

- A 380  
B 135  
C 143  
D 7

2. Find the value of position  $n$  for the table below.

Position of Term	Value of Term $y$
1	1.75
2	3.5
3	5.25
4	7
$n$	?

Which equation will give the value of term  $n$ ?

- A  $y = 1.75n$   
B  $y = 1.75 + n$   
C  $y = n + 1.75n$   
D  $y = 2.75 - n$

*Fold here.*

**Solution**

1. *Hint: Use order of operations when simplifying a problem that has multiple operations in it. 1. Perform all operations in parentheses and operations that involve exponents. 2. Complete multiplication and division operations. 3. Complete addition and subtraction operations from left to right.*

- Do  $12 \cdot 3$  and  $4^2$  first. You should now have  $7 + 4(36) - 16$ .
- Do  $4(36)$  next. You should now have  $7 + 144 - 16$ . Therefore, this is the correct answer.
- Go from left to right for the addition and subtraction remaining.  
 $7 + 144 = 151$ ;  $151 - 16 = 135$ .

The answer is **B**.

**Solution**

2. *Hint: Find the relationship between the position and value of the terms on a table. Always look beyond the first pairing. You should always check your idea with at least three pairings to be sure it is correct. Substitute the values in the table into each equation to find the best fit.*

A  $y = 1.75n$

$$1.75 = 1.75(1) \checkmark$$

$$3.5 = 1.75(2) \checkmark$$

$$5.25 = 1.75(3) \checkmark$$

The answer is **A**.