

Central Dauphin School District
Grade 4 Math: Unit 4 Parent Letter
Algebraic Concepts



Dear Parents,

Over the next several weeks, we will be learning about **mathematical relationships** in math! The information below will help you to support your child as they learn these exciting, yet important fourth grade math skills.

The **GOAL**:

By the end of the unit, your child should be able to **represent mathematical relationships**.

Help your child represent mathematical equations:

Students will see an equation that states:

$$35 = 5 \times 7$$

Students should interpret this as:

35 is 5 times as many as 7.

Help your child determine prime and composite numbers:

A prime number is a whole number greater than 1 with exactly 2 factors, 1 and the number itself.

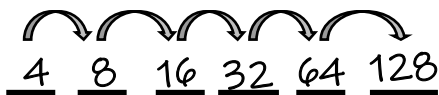
Since 7 has only two factors (1 and 7)... it is prime.

A composite number is a whole number greater than 1 that has more than 2 factors.

Since 9 has more than two factors (1, 3, and 9)... it is composite.

Help your child identify the rule in a pattern:

The rule for the pattern is *multiply by 2*. The first term in the pattern is 4.



Help your child solve multi-step word problems:

When solving word problems, students must be able to read the problem and pull out the key information. Here are some steps to support your child:

1. Read the problem.
2. Determine what the problem is asking.
3. Identify the operation(s) that you need to use.
4. Find the important information and eliminate any unnecessary information.
5. Solve the problem & check your work.

Jason has s packs of 8 colored pencils. He divided the colored pencils into 2 equal bags. Now, he has 64 colored pencils in each bag. How many packs of colored pencils did Jason start with?

"Step 3" - 'Packs of' means 'groups of' which means multiply in this problem. "He divided" confirms you will need to divide once you find the total amount of colored pencils. "2 equal bags" shows each bag must have the same amount of colored pencils.

"Step 4" - In this problem, all of the information is important.

"Step 5" - Write the equation to solve the problem!

$$s \times 8 \div 2 = 64$$

$$s = 16$$

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Grade 4 Math: PA Core Math Standards in Unit 4

CC.2.2.4.A.1: Represent and solve problems involving the four operations.

CC.2.2.4.A.4: Generate and analyze patterns using one rule.

-- HOW YOU CAN HELP AT HOME --

- Find numbers within the environment and help your child identify factors to determine if it is prime or composite.
- Use a pack of skittles, M&Ms, etc., to identify a pattern with the colors.
- Make similar problems that are like the problems on the front of this letter.
- Help children to find patterns based on events that are relevant to them (earning money for completing chores, finding patterns as you are driving, organizing toys, table settings, etc.).

-- KEY MATH VOCABULARY --

Equation: A mathematical sentence or statement relating to equal expressions (this always contains an equal sign).

Expression: A mathematical sentence that does not contain an equal sign.

Function: A relation in which each input value is associated with exactly one output value.

Term: A component (or single number) in a pattern, sequence, or fraction.



less than

example: $16 < 33$

example: $2 \times 4 < 3 \times 8$



greater than

example: $29 > 2$

example: $20 \div 4 > 15 \div 5$



equal to

example: $14 = 14$

example: $3 \times 4 = 24 \div 2$