

**Chapter
6****Numerical Expressions and Factors**

Dear Family,

When you shop at the grocery store and you place your items on the checkout stand, you usually don't ask, "Does it matter if the price of milk is added before the price of bread?" This is because you know that the order you add the items doesn't matter—but you may not realize you are using one of the mathematical properties of addition!

You and your student can have fun relating the day-to-day mathematics you use to other number properties. For example, you can ask your student:

- "Does it matter if the cashier adds three cans of peas one at a time or multiplies the price of one can by three?" Your student may answer, "The total is the same either way."
- "If you take three apples from the display and put two back, is that the same as taking two apples from the display and putting three back? How does that make subtraction different?" Your student may answer, "Order does matter with subtraction. You can't put back more than you took originally!"
- "Does it matter if you multiply the price of an item you buy by the quantity or if you multiply the quantity by the price?" Your student may answer, "The total price is the same either way. Order doesn't matter when you multiply."
- "Does order matter with division? If you divide the price of a pack of pudding cups by the number of pudding cups will you get the same answer if you divide the number of pudding cups by the price?" Your student may answer, "No, the answers are different, so order does matter with division."

Your student will be studying concepts like these in math class. See if you and your student can find other examples of mathematical properties or formulas in your day-to-day life.

Happy Shopping!

Lesson	Learning Target	Success Criteria
6.1 Powers and Exponents	Write and evaluate expressions involving exponents.	<ul style="list-style-type: none"> I can write products of repeated factors as powers. I can evaluate powers.
6.2 Order of Operations	Write and evaluate numerical expressions using the order of operations.	<ul style="list-style-type: none"> I can explain why there is a need for a standard order of operations. I can evaluate numerical expressions involving several operations, exponents, and grouping symbols. I can write numerical expressions involving exponents to represent a real-life problem.
6.3 Prime Factorization	Write a number as a product of prime factors and represent the product using exponents.	<ul style="list-style-type: none"> I can find factor pairs of a number. I can explain the meanings of prime and composite numbers. I can create a factor tree to find the prime factors of a number. I can write the prime factorization of a number.
6.4 Greatest Common Factor	Find the greatest common factor of two numbers.	<ul style="list-style-type: none"> I can explain the meaning of factors of a number. I can use lists of factors to identify the greatest common factor of numbers. I can use prime factors to identify the greatest common factor of numbers.
6.5 Least Common Multiple	Find the least common multiple of two numbers.	<ul style="list-style-type: none"> I can explain the meaning of multiples of a number. I can use lists of multiples to identify the least common multiple of numbers. I can use prime factors to identify the least common multiple of numbers.