

**Chapter
3****Expressions**

Dear Family,

Algebra is used to describe relationships in general terms. Consider the following statements.

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| • Game tickets are \$7 each. | The cost of n tickets is $7n$ dollars. |
| • It takes 5 minutes to get shoes and car keys and walk to the car. | For a drive of m minutes, allow $m + 5$ minutes. |
| • Each question on a 20-question test is worth 1 point. | If you miss x questions, your score on the test will be $20 - x$. |

On the left, the rule is stated in words, the way you might remember it. On the right, the rule is stated as a mathematical expression with a variable. The number of tickets, the length of the drive, and the number of questions missed are all variables—that is, they might have many different values. The cost of a ticket, the time to get to the car, and the total number of questions on the test are constants—that is, they remain the same. Ask your student to answer each question, using the information above.

- What is the cost of 3 game tickets?
- You want to arrive at baseball practice at 4:30. The drive is 15 minutes. What time should you get ready to leave?
- You miss 2 questions on the test. What is your score?

(Answers: \$21, 4:10, 18 points)

Rather than remember all possible ticket costs, driving times, or test scores, you remember the rule for finding them. These examples are uses of algebra in daily life.

With your student, find another algebraic rule you could use in daily life. What are the variables? What are the constants? Have your student evaluate your rule for two different values of the variable(s).

Have fun exploring expressions together!

Lesson	Learning Target	Success Criteria
3.1 Algebraic Expressions	Simplify algebraic expressions.	<ul style="list-style-type: none"> I can identify terms and like terms of algebraic expressions. I can combine like terms to simplify algebraic expressions. I can write and simplify algebraic expressions to solve real-life problems.
3.2 Adding and Subtracting Linear Expressions	Find sums and differences of linear expressions.	<ul style="list-style-type: none"> I can explain the difference between linear and nonlinear expressions. I can find opposites of terms that include variables. I can apply properties of operations to add and subtract linear expressions.
3.3 The Distributive Property	Apply the Distributive Property to generate equivalent expressions.	<ul style="list-style-type: none"> I can explain how to apply the Distributive Property. I can use the Distributive Property to simplify algebraic expressions.
3.4 Factoring Expressions	Factor algebraic expressions.	<ul style="list-style-type: none"> I can identify the greatest common factor of terms, including variable terms. I can use the Distributive Property to factor algebraic expressions. I can write a term as a product involving a given factor.