

KEY CONCEPT OVERVIEW

In this topic, students use a tape diagram to write addition and subtraction expressions. They identify parts of an expression and write multiplication expressions in various ways: $11 \times a$, $11 \cdot a$, or $11a$. Using knowledge of the greatest common factor (GCF) and the distributive property, students write expressions in factored and expanded forms. To conclude Topic D, students write division expressions in two forms: dividend \div divisor and $\frac{\text{dividend}}{\text{divisor}}$.

You can expect to see homework that asks your child to do the following:

- Given an expression in word form, write the expression in standard form. For example, write the sum of g and 5 as $g + 5$.
- Rewrite an expression in standard form, for example, $6 \cdot y$ as $6y$.
- Write an expression in factored form, for example, $2x + 8y$ as $2(x + 4y)$.
- Find the product of two **terms**, for example, $8x \cdot 3y = 24xy$.
- Use a model to prove two expressions are equivalent.
- Use the GCF and the distributive property to write equivalent expressions.
- Rewrite a division expression by using words, the division symbol (\div), the long division symbol ($\overline{\hspace{1cm}}$), and as a fraction.

SAMPLE PROBLEMS (From Lessons 10 and 13)

1. Write the expression by using the fewest possible symbols and characters. Use math terms to describe both the expression and its parts.

$$2 \times 2 \times 2 \times a \times b$$

8ab. The 8 is the coefficient and a factor, a and b are both variables and factors, and 8ab is the product and also a term.

2. Write the expression two ways: with the division symbol and as a fraction.

a divided by 4

$$a \div 4 \text{ and } \frac{a}{4}$$

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

You can help at home in many ways. Here are some tips to help you get started.

- Ask your child to write the problem $3\overline{)m + 11}$ in words, as a fraction, and with the division symbol. (The sum of m and 11 divided by 3, $\frac{m + 11}{3}$, and $(m + 11) \div 3$.) Then, ask your child to evaluate the original expression if $m = 16$. (Answer: 9)
- Ask your child to draw a model that shows the expression w increased by 4 (

w	4
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). Then, write an expression that represents this model ($w + 4$). Challenge your child to think of another way to write this expression ($4 + w$) and draw the corresponding model (

4	w
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TERMS

Coefficient: A constant factor (not to be confused with a *constant*) in a variable term. For example, in the term $4m$, 4 is the coefficient, and it is multiplied by the variable m .

Term: Part of an expression that can be added to or subtracted from the rest of the expression. In the expression $7g + 8h + 3$, the terms are $7g$, $8h$, and 3.