

MP2b-Equivalent Expressions

Content Area: **Math**
Course(s): **Math 6 ACC**
Time Period: **Marking Period 2**
Length: **Weeks 7-10 Go Math! Advanced Unit 4**
Status: **Published**

Essential Questions

- How can you generate equivalent numerical expressions?
- How can you generate equivalent algebraic expressions?

Big Ideas

- Use properties of operations to generate equivalent expressions.

Technology Integration

8.1.8.A.1 Demonstrate knowledge of a real world problem using digital tools.

8.1.8.A.2 Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.

Activity:

Google Slides presentation on a restaurant project. Students research other restaurants and deals to create a menu with realistic pricing. Students create scenarios of people visiting their restaurant including tax, using coupons or receiving a discount. In their scenarios, students also calculate the tip, subtotals, discounted price, discount, and final total the guests will pay.

Cross-Curricular Integration

Integration Area: Language Arts

NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

NJSLSA.W5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a

new approach.

NJSLSA.W6 . Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

NJSLSA.W7. Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.

NJSLSA.W8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Activity:

Research a celebrity or professional athlete to find out how much money that person earned last year. Create report that answers the following questions:

How much did the person make per hour? Assume the person worked 40 hours per week for 52 weeks.

If the person's earnings were converted to dollar bills , how many miles would the bills stretch if they were laid end to end?

How many days would it take to spend the earnings at the rate of \$1 per second?

Enduring Understandings

Expressions and Equations

6.EE.1[M] Write and evaluate numerical expressions involving whole-number exponents.

6.EE.2a[M] Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation "Subtract y from 5" as $5 - y$.

6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.

6.EE.3 [M] Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Lesson 10.3
2. Reason abstractly and quantitatively. Lesson 9.1, 9.2, 10.1, 10.3
3. Construct viable arguments and critique the reasoning of others. Lesson 9.1,9.2, 9.3, 10.1,10.2, 10.3
4. Model with mathematics. Lesson 9.1, 9.2, 9.3, 10.1, 10.2, 10.3
5. Use appropriate tools strategically. Lesson 9.1, 9.2, 9.3, 10.1, 10.3
6. Attend to precision. Lesson 9.2, 10.1, 10.2, 10.3
7. Look for and make use of structure. Lesson 9.1, 9.2, 9.3, 10.1, 10.2, 10.3
8. Look for and express regularity in repeated reasoning. Lesson 10.3