

CORE Assessment Module Module Overview

Content Area	Mathematics
Title	Cookies
Grade Level	Grade 3
Problem Type	Performance Task
Standards for Mathematical Practices	<p>Mathematical Practice 2 (MP2): Reason abstractly and quantitatively.</p> <p>Mathematically proficient students:</p> <ul style="list-style-type: none"> • Make sense of quantities and their relationships in problem situations. • Bring two complementary abilities to bear on problems involving quantitative relationships: <ul style="list-style-type: none"> ○ Decontextualize—to abstract a given situation and represent it symbolically; and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents) and ○ Contextualize—to pause as needed during the manipulation process in order to probe into the referents for the symbols involved). <p>Use quantitative reasoning that entails creating a coherent representation of the problem at hand, considering the units involved, attending to the meaning of quantities (not just how to compute them) and knowing and flexibly using different properties of operations and objects.</p>
Common Core State Standards	<p>3.OA.1 Interpret products of whole numbers</p> <p>3.OA.2 Interpret whole-number quotients of whole numbers</p> <p>3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities,</p> <p>3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = _ \div 3$, $6 \times 6 = ?$.</i></p>
SBAC Assessment Claims	Claim 2: Problem Solving —Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
Task Overview	Students will engage in constructed response contextual tasks involving multiplication and division. Tasks include a variety of problem situations (e.g., unknown product, unknown group size, or unknown number of groups) of increasing complexity. Students will represent their thinking in multiple ways (e.g., pictorially, symbolically, or textually) to demonstrate conceptual understanding.
Module Components	1) Scoring Guide 2) Performance Task

Cookies Scoring Guide

Baking and Bagging Cookies	Points	Total Points
Credit for specific aspects of performance should be given as follows:		
1. Student's drawing correctly shows the arrangement of 12 in two different arrays.	1 point 1 point	2 points
2. 48 cookies (correct answer) Student work (this may include a correct process but incorrect arithmetic)	1 point 1 point	2 points
3. 3 cookies (correct answer) Student work (this may include a correct process but incorrect arithmetic)	1 point 1 point	2 points
4. 9 bags (correct answer) Student explanation in words or drawing (this may include a correct process but incorrect arithmetic)	1 point 1 point	2 points
5. He needs 5 cookie sheets 6. He can have 30 bags of 2, 20 bags of 3 or 15 bags of 4 (or any other correct combination) 7. A letter that explains the best way of selling the cookies to earn the most money (most students will respond with 30 bags will make the most money, but any logical solution will be accepted).	1 point 1 point per 3 points for solution/explanation	7 points
Total Points		15 points

Student Name _____

Cookies

Cookie Monster is baking cookies and wants to give some cookies away so that he can stop eating them all. He plans to share the cookies with his friends. He needs your help with baking and putting them in bags.

PART A - Baking

1. When Cookie Monster bakes his cookies, he puts them on the sheet in neat rows and columns. What are two different ways that Cookie Monster could arrange his cookies on the cookie sheet if each sheet holds 12 cookies, or a dozen? Draw the two cookie sheets.

2. Cookie Monster baked 4 dozen cookies. There are 12 cookies in a dozen. Figure out how many cookies he baked. Explain how you found your answer using pictures, number sentences and/or words.

PART B - Bagging

3. Cookie Monster wants to share some cookies with his friends, so he put them into small bags. If he baked 2 dozen cookies and has 8 bags, how many cookies will go into each bag? Explain how you found your answer using pictures, number sentences and/or words.

4. If Cookie Monster baked 72 cookies and packed 8 in each bag, how many bags would he need? Explain how you found your answer using pictures, number sentences and/or words.

PART C

Cookie Monster wants to sell his cookies at the Sesame Street Bake Sale. He will bake cookies and put them into bags to sell to his customers. He needs some help with how to do this. Use the following information to answer Cookie Monster's questions.

- 12 cookies fit on a sheet
- He has enough batter to bake 60 cookies
- Each bag must have an equal share of cookies and have more than one cookie in it
- Each bag will cost \$2

5. How many cookie sheets will Cookie Monster need?

6. Give Cookie Monster 3 options for putting the cookies in bags.

_____ bags with _____ cookies in each bag

_____ bags with _____ cookies in each bag

_____ bags with _____ cookies in each bag

7. Write to Cookie Monster and tell him how to bag the cookies so that he can make the most money from the bake sale.