

CORE Assessment Module Module Overview

Content Area	Mathematics
Title	Bake Sale
Grade Level	Grade 5
Problem Type	Performance Task
Standards for Mathematical Practice	<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>5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</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 be asked to solve some constructed response questions involving multiplication of fractions and whole numbers. In Part 2, students will write a letter that explains mathematically how many cookies he will be bringing to the bake sale.
Module Components	1) Scoring Guide 2) Task

Bake Sale Scoring Guide

Part	Description	Points	Total Points
Credit for specific aspects of performance should be given as follows:			
1	1. Student gives correct answer: $1\frac{1}{2}$, $\frac{3}{2}$, or $\frac{6}{4}$ cups Student shows work	1 1	2
	2. Student gives correct answer: $\frac{27}{8}$ or $3\frac{3}{8}$ cups Student shows work (This may include a correct process, but incorrect arithmetic.)	1 1	2
	3. $\frac{27}{4}$ or $6\frac{6}{8}$ or $6\frac{3}{4}$ cups Student shows work (This may include a correct process, but incorrect arithmetic.)	1 1	2
2	4. Student gives correct answer: 60 chocolate chip, 30 peanut butter, 15 sugar, and 15 oatmeal. Student shows work (This may include a correct process, but incorrect arithmetic.)	1 1	2
	5. a. Student gives correct answer: 12 peanut butter cookies b. Student explanation should include <ul style="list-style-type: none"> • finding $\frac{3}{5}$ of 30 to get 18 burnt cookies • subtracting 18 from 30 to have 12 cookies left to sell. 	1 1	2
3	6. Student gives correct answer: Sam is correct. Student response should include: <ul style="list-style-type: none"> • Correct problem solving and work • A justification of why • Visual model and/or equations 	1 1 1 1	4
TOTAL POINTS: (possible points = 14 points)			

Part 2

Fred bakes 10 dozen cookies for the bake sale. He makes the following types of cookies:

- 1/2 chocolate chip cookies
- 1/4 peanut butter cookies
- 1/8 sugar cookies
- 1/8 oatmeal raisin cookies

4. How many of each type of cookie did Fred make? Show your work.

Chocolate Chip	
Peanut Butter	
Sugar	
Oatmeal Raisin	

5. Unfortunately, Fred had some trouble in the kitchen and $\frac{3}{5}$ of the peanut butter cookies were burned.

a. How many peanut butter cookies does Fred have left to sell? _____

b. Explain how you know this is correct.

Part 3

6. Fred, and his friend Sam, had a hard time resisting the cookies that the class next door baked. They were giant cookies instead of the smaller ones Fred and Same made. Fred ate one-fourth of a giant chocolate chip cookie. He also ate three-eighths of a giant peanut butter cookie and one-half of a giant sugar cookie. Sam ate five-eighths of a chocolate chip cookie and he ate the other half of the sugar cookie. All of the giant cookies were the same size. Fred says he ate more than Sam because Sam did not eat any of the giant peanut butter cookie. Sam says they each ate the same amount of the giant cookies. Who is correct and why? Show all of your mathematical thinking, include drawings and equations.