

## THE *MATHLINKS* Rubric

Task requirements will vary. Choose bullets appropriately.

- Math (SMP6)
  - ✓ Computations and procedures are correct
  - ✓ Representations (numbers, symbols, diagrams) are created correctly
  - ✓ Vocabulary is used properly
- Context (SMP 1)
  - ✓ Solutions satisfy problem requirements, including quantities and units
  - ✓ Suitable representations are used
  - ✓ Data is interpreted appropriately within the problem context
- Reasoning (SMP 3)
  - ✓ Solutions and strategies are justified
  - ✓ Explanations are clear and flow logically

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## BROWNIE PROBLEM PART 1

Mateo has 5 brownies. He keeps one brownie for himself, gives  $\frac{1}{4}$  of a brownie to his dad, and then divides the remaining brownies among three friends.



Mateo

1. How much brownie does each friend get? Show your work or explain your thinking.

2. Suppose Mateo gives  $\frac{1}{4}$  of a brownie to his dad first, keeps one brownie for himself, and then divides the rest of the brownies among his friends. Does this change the result? Explain.

## BROWNIE PROBLEM PART 2

Mateo has 5 brownies. He keeps one brownie for himself, gives  $\frac{1}{4}$  of a brownie to his dad, and then divides the remaining brownies among three friends.



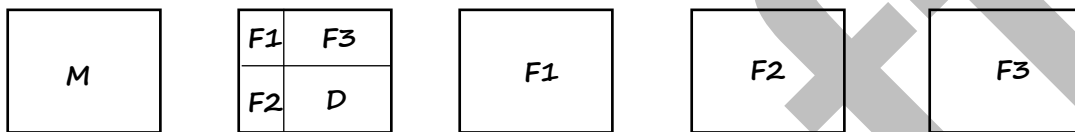
Mateo

3. To find how much brownie each friend gets, Zara drew this picture. Is Zara correct? Give positive, constructive feedback and suggestions to improve the response.



Zara

Zara lets M stand for Mateo, D for dad, and F1, F2, and F3 for the 3 friends.



4. Emmett used numbers to find how much brownie each friend gets. Is Emmett correct? Give feedback to improve the response.

$$5 - 1 = 4 - \frac{1}{4} = 3\frac{3}{4} \div 3 = 1\frac{1}{4} \text{ for each friend}$$



Emmett

### BROWNIE PROBLEM PART 3

Mateo has 5 brownies. He keeps  $\frac{1}{4}$  of all of the brownies for himself, gives  $\frac{1}{2}$  of a brownie to his dad and  $\frac{1}{2}$  of a brownie to each of his three friends. How much brownie is left over?



2. Solve the problem. Show your work or explain your thinking.

3. Use numbers and words as an explanation to the problem and your picture above.