Preliminary Planning Sheet
Grade 3 – Ben's Apple Pie

Domain(s)

Number and Operations—
Fractions[1]

Standard(s)

3.NF.A.3b

Mathematical Practices

MP.1   MP.3   MP.4   MP.5   MP.6

Major Underlying Mathematical Concepts

- Recognize and generate simple equivalent fractions
- Comparison
- Fraction notation

Problem Solving Strategies

- Model (manipulatives)
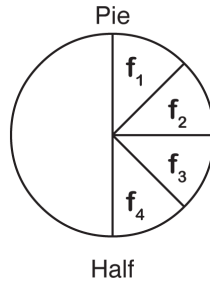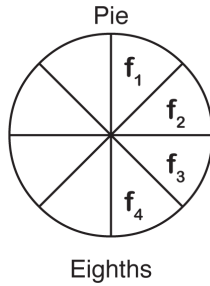- Area model
- Diagram/Key
- Chart
- Table
- Number line

Formal Mathematical Language and Symbolic Notation

- Model
- Area model
- Diagram/Key
- Table
- Chart
- Number line
- Fractions
- 1/2, 4/8 ...
- Whole
- Rectangle/Rectangular
- Numerator/Denominator
- Greater than (>)/Less than (<)
- Equivalent/Equal to
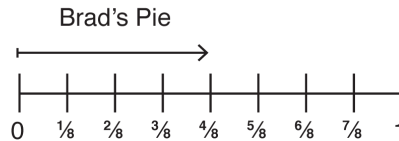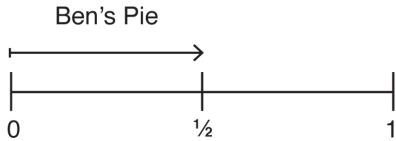- Per
- Percent
- 50%
- Decimal
- 0.5

Possible Solution(s)

Ben and Brad are both correct.

Key
f is friend

Pie

f_1
f_2
f_3
f_4

Eighths

Pie

f_1
f_2
f_3
f_4

Half

$$\frac{4}{8} = \frac{1}{2}$$

Ben's Pie

0   ½   1

Brad's Pie

0   ⅛   ²⁄₈   ³⁄₈   ⁴⁄₈   ⅝   ⁶⁄₈   ⅞   1

Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Find other equivalent fractions $\left(\frac{2}{4}\right)$.
- Half $\left(\frac{1}{2}\right)$ a pie is left.
- All four friends can have a second piece of pie.
- $\frac{1}{2}$ a pie is 0.5 or 50%.
- Solve more than one way to verify the answer.
- Relate to a similar task and state a math link.
- The answer would be the same even if the pie were rectangular.
- In the fraction $\frac{4}{8}$, four is the numerator and eight is the denominator.
- If ten friends wanted a piece of pie the pieces would be smaller so that everyone could have a piece.