**Just In Time Quick Check**

**Standard of Learning (SOL) 2.4c**

**Strand:** Number and Number Sense

## Standard of Learning (SOL) 2.4c

***The student will compare the unit fractions for halves, fourths, eighths, thirds, and sixths, with models.***

## Grade Level Skills:

- Compare unit fractions for halves, fourths, eighths, thirds, and sixths), using words (greater than, less than or equal to) and symbols (>, <, =), with models.
- Using same-size fraction pieces, from region/area models or length/measurement models, count the pieces (e.g., *one-fourth, two-fourths, three-fourths*, etc.) and compare those pieces to one whole (e.g., *four-fourths* will make one whole*; one-fourth* is less than a whole).

## Just in Time Quick Check

## Just in Time Quick Check Teacher Notes

## Supporting Resources:

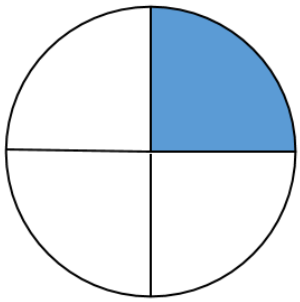
- VDOE Mathematics Instructional Plans (MIPS)
  - Cookie Fractions (Word)/PDF
  - Pattern Block Fractions (Word)/PDF
  - More or Less (Word)/PDF
- VDOE Word Wall Cards: Grade 2 Word/PDF
  - Fraction: Half and Fourth
  - Fraction: Thirds
  - Fraction: Sixths
  - Fraction: Eighths
  - Compare Unit Fractions
- VDOE Instructional Videos for Teachers: Comparing and Ordering Fractions

## Supporting and Prerequisite SOL: 2.4a, 2.4b, 1.2c, 1.4b, K.2a, K.2b

**SOL 2.4c - Just in Time Quick Check**

1. Aniyah has $\frac{1}{3}$ of a brownie and Jason has $\frac{1}{2}$ of a brownie. Who has more of a brownie? Draw a picture to show how you know.

2. Compare the fractions shaded in the pictures below.
   a. Write the fraction shaded under each picture.
   b. Write "greater than," "equal to," or "less than" on the line between the pictures to compare the fractions.



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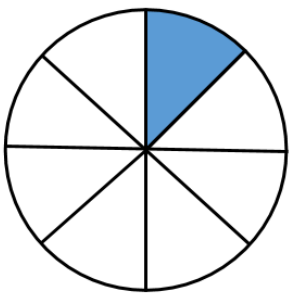
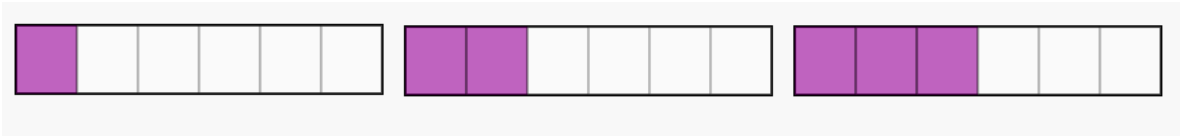


_____ _____

3. A fraction is shaded in each picture. Write the fraction shaded in each picture.



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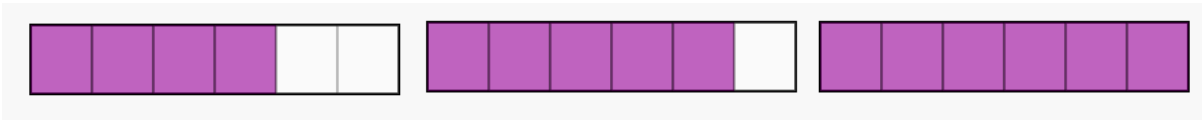


_____ _____ _____

How many parts make one whole in each picture above? _____

4. Use these pictures to answer the questions.

How many parts make one whole in each picture?

_____ _____

What fraction is shaded in each picture?

_____ _____

Use one of these symbols to compare the fractions shaded: >, <, or = .

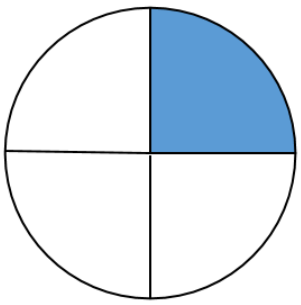
## SOL 2.4c - Just in Time Quick Check Teacher Notes

**Common Errors/Misconceptions and their Possible Indications**

1. Aniyah has $\frac{1}{3}$ of a brownie and Jason has $\frac{1}{2}$ of a brownie. Who has more of a brownie? Draw a picture to show how you know.

*Students may think that $\frac{1}{3}$ is larger than $\frac{1}{2}$ because they are looking at the numbers in the denominator and using their knowledge of whole numbers. Dividing a whole into parts and naming the parts after each division is made helps students develop understanding of fractions and fraction notation. These experiences help students conceptualize that as the whole is divided into more parts, each part becomes smaller (e.g., folding a paper in half one time creates two halves; folding it in half again, creates four fourths, which are each smaller; folding it in half again, creates eight eighths, which are even smaller).*

2. Compare the fractions shaded in the pictures below.
   a. Write the fractions shaded under each picture.
   b. Write "greater than," "equal to," or "less than" on the line between the pictures to compare the fractions.



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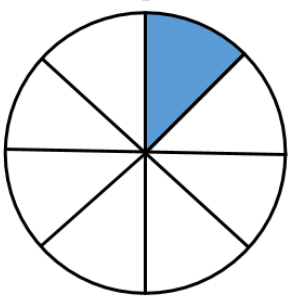
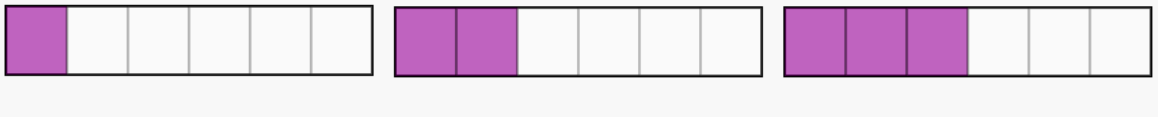


*Students may have the misconception that $\frac{1}{8}$ is larger than $\frac{1}{4}$ when only looking at the denominators and/or using whole number understanding that 8 is larger than 4. When looking at the pictures, they see that the circle of eighths has more pieces than the circle of fourths. To help students develop conceptual understanding for comparing fractions, provide hands-on opportunities to break same-size wholes into different numbers of parts, naming the fractions and reflecting on both the number and size of pieces after each break.*

*Creating and using physical models to compare unit fractions builds a mental image of fractions and the understanding that as the number of pieces of a whole increases, the size of one single piece decreases (i.e., the larger the denominator the smaller the piece). Folding paper into halves, fourths, eighths, thirds, and sixths and then cutting 1 of the two halves apart, 1 of the three thirds apart, 1 of the four fourths apart, etc. is one way to model each unit fraction. With this representation, students can compare pieces by laying them on top of each other to see which is larger or smaller. These pieces can also be ordered from least to greatest to begin a discussion of ordering fractions or to make connections to the locations of these fractions on a number line.*

3. A fraction is shaded in each picture. Write the fraction shaded in each picture.



_____ _____ _____

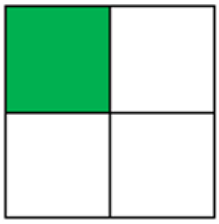
_____ _____ _____

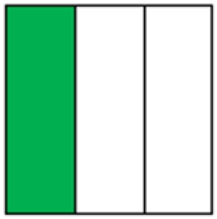
How many parts make one whole in each picture above? _____

*Students may reverse the numerator and denominator, which indicates they do not have a firm grasp of fraction notation and may not understand which number in the fraction represents the count of the number of parts referenced and which number in the fraction represents the number of parts that make up the whole.*

*Counting by unit fractions (e.g., "one-fourth, two-fourths, three-fourths, four-fourths") helps students understand fractions as numbers within our number system while also providing a basis for comparisons. Opportunities to count unit fractions represented as region/area and length/measurement models should be provided.*

4. Use these pictures to answer the questions.





How many parts make one whole in each picture?

_____ _____

What fraction is shaded in each picture?

_____ _____

Use one of these symbols to compare the fractions shaded: >, <, or = .

*Students may say $\frac{1}{4} > \frac{1}{3}$ because they know from their whole number knowledge that 4 is greater than 3. Students frequently confuse the greater than (>), less than (<), and equal to (=) symbols. Reading comparisons aloud ("one-fourth is less than one-third") and using the language represented by the symbolic notation builds meaning for symbolic notation while fostering the use of appropriate mathematics vocabulary.*