**Math Grade 4 F**

**Grade Level Standard(s):**

KY.4.NF.1

**Materials:**
- Math 4 F Visual Fraction Model Template
- Math 4 F Attainment Task Questions for Student Use

**Response Code:**
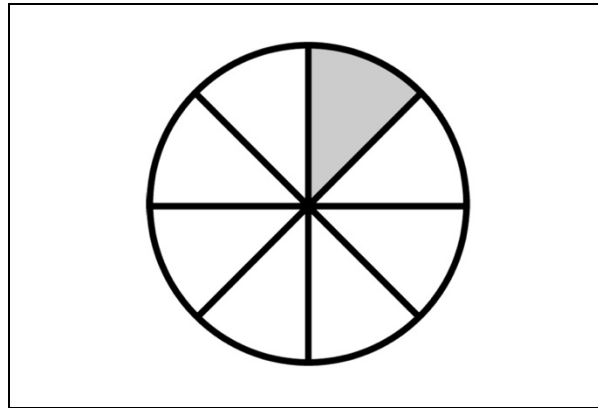- Indicate the answer provided by the student.

**Text Coding:**
- "Quotation marks" indicate the script that the teacher should read to the student.
- *Italicized text* provides further direction for the test administrator.
- Words in parenthesis ( ) are optional; they may replace or be read in addition to the word(s) immediately preceding.
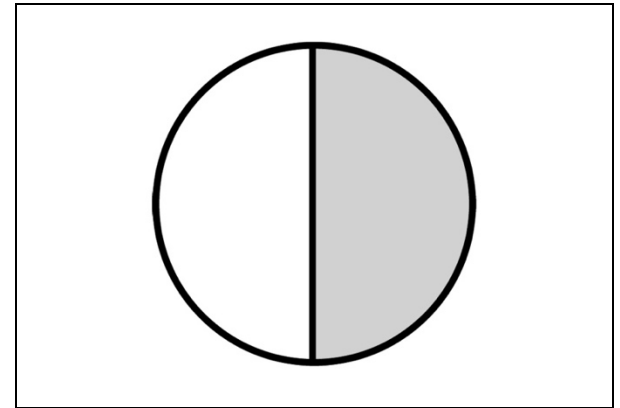
a.
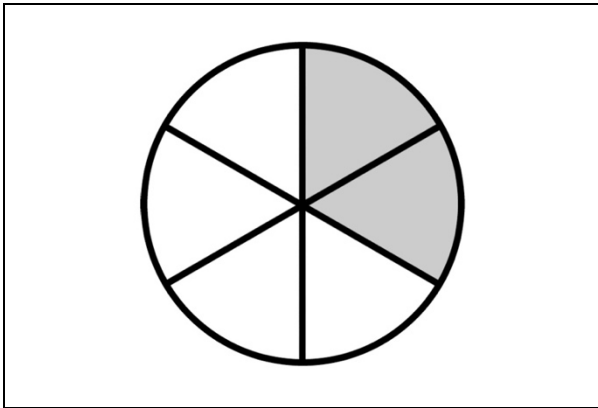
b.

c.

*Before beginning task administration, please ensure that all conditions specified in the administration protocol (starting on page 10 of the Administration Guide Overview and Attainment Task Administration) have been met. Inform the student that the task is about to start by saying,* "We are about to start the task, and I am going to ask you some questions."

*All questions from this task are available for presentation to the student in the supplemental material Math 4 F Attainment Task Questions for Student Use.*

"Mr. Baker's class is using recess games to help them understand fractions."

*Present the student with Math 4 F Visual Fraction Model Template 5) and the **student picture response options (on opposite page)**.*

5.  "Aaron drank $\frac{2}{4}$ more of a water bottle than Jenel. Use the visual fraction models. Which fraction is equivalent to $\frac{2}{4}$ ?"

| Response Option | Response Rationale |
|---|---|
| a. $\frac{2}{6}$ | *The student attempts to identify the equivalent fraction but adds all pieces of both models to determine the denominator.* |
| b. $\frac{1}{8}$ | *The student incorrectly adds the denominator* $(4)$ *from both fractions presented in the word problem.* |
| c. $\frac{1}{2}$ **(Correct)** | *The student identifies the equivalent fraction by using the visual fraction models.* |
| ***Depth of Knowledge (DOK) 1*** ||

**Math 4 F Visual Fraction Model Template**

5)

**Math 4 F Attainment Task Questions for Student Use**

5. Aaron drank $\frac{2}{4}$ more of a water bottle than Jenel. Use the visual fraction models. Which fraction is equivalent to $\frac{2}{4}$ ?

**Kentucky Academic Standard:** KY.4.NF.1 - Understand and generate equivalent fractions. a. Use visual fraction models to recognize and generate equivalent fractions that have different numerators/denominators even though they are the same size.
b. Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $(n \times a)(n \times b)$. **MP.4, MP.7, MP.8**

**Alternate Assessment Target:** *Limit full standard to using visual fraction models to identify equivalent fractions with denominators 2, 3, 4, 6, 8, 10.*

| Student Group | Number of Students* | Percent Correct |
|---|---|---|
|  |  |  |
| All Students | 553 | 48.82% |
|  |  |  |
| **Gender** |  |  |
| Female | 188 | 46.28% |
| Male | 365 | 50.14% |
|  |  |  |
| **Ethnicity** |  |  |
| African American | 69 | 46.38% |
| American Indian or Alaska Native | <10 | Not Reported |
| Asian | <10 | Not Reported |
| Hispanic of Latino | <10 | Not Reported |
| Native Hawaiian of Pacific Islander | <10 | Not Reported |
| White (Non-Hispanic) | 398 | 50.00% |
| Two or More Races | 81 | 46.91% |
|  |  |  |
| **English Learner** | 31 | 38.71% |
|  |  |  |
| **Economically Disadvantaged** | 421 | 50.36% |

*Number of students that attempted the item