

Island Numeracy Assessment

Grade 5+: Number Sense B

Collaborative Task:

Materials: 16 fraction cards photocopy and cut (dark coloured paper or card stock)

Task:

Teams of four.

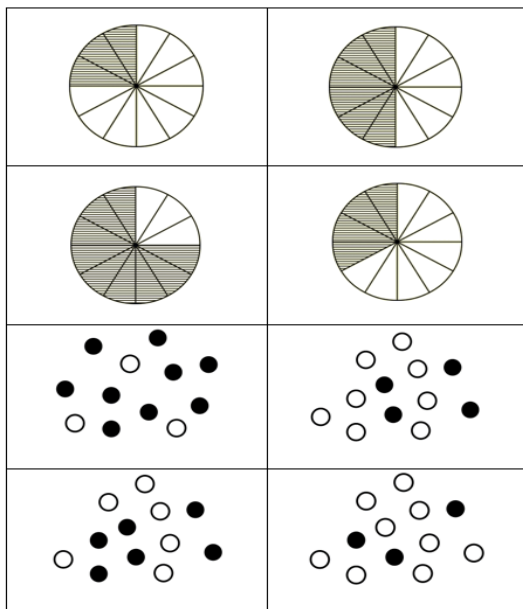
Every member of the team is to end up with a set of four cards in front of them that are related to each other in a similar way. Task is completed successfully when everyone on the team has completed their set.

In silence distribute the 16 cards randomly. Players pass cards to other team members in order to help one another complete their set.

Play:

- no chatter or non-verbal signals to other members of the team
- each member of the team starts with four cards in front of them
- the cards in front of each person are visible to everyone
- team members can only give cards; they cannot take cards from someone else.
- team members are to have at least two cards in front of them at all times

Task adapted from: <https://nrich.maths.org/12752>



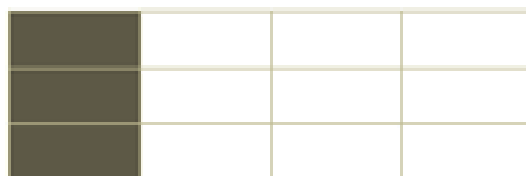
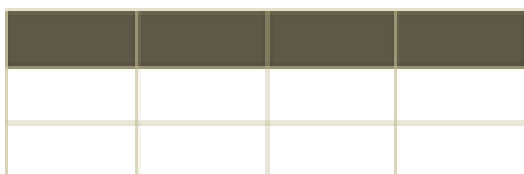
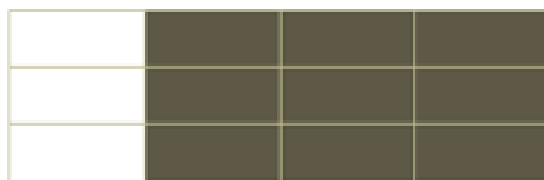
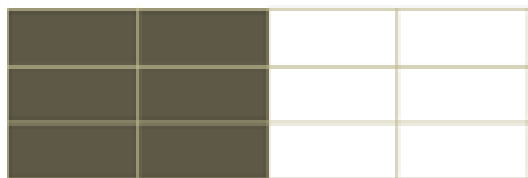
$\frac{1}{4}$	$\frac{3}{4}$
Third	$\frac{6}{12}$






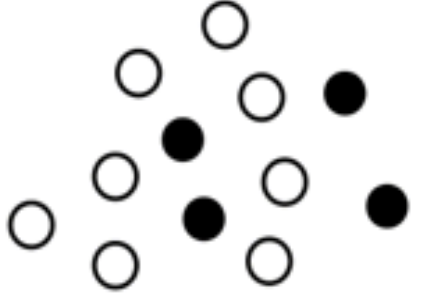
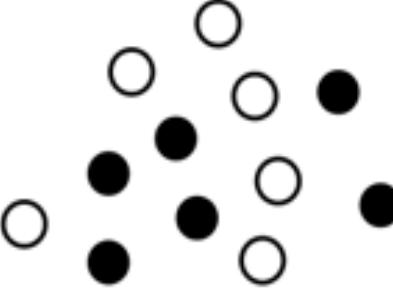
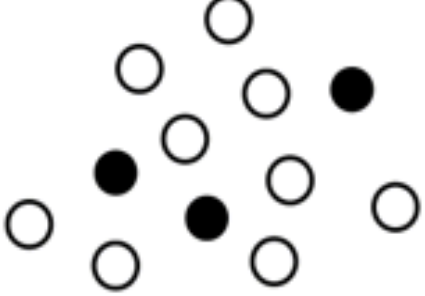
$$\frac{1}{4}$$

$$\frac{3}{4}$$





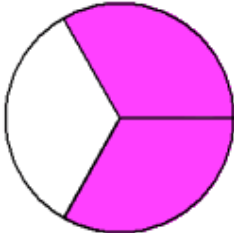

Third

$$\frac{6}{12}$$

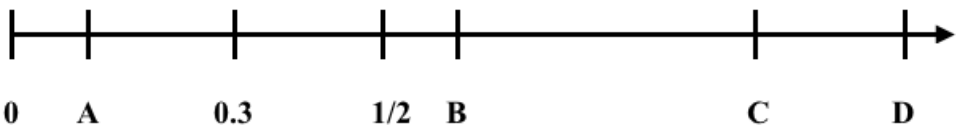


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Assessment Question	Answer Key
<p>1. Which picture shows $\frac{3}{4}$ of the animals are fish?</p> <p>A </p> <p>B </p> <p>C </p> <p>D </p>	<p>Answer: A</p> <p>Student must recognize that $\frac{6}{8}$ is equivalent to $\frac{3}{4}$.</p>
<p>2. This shaded area of the circle represents the common fraction $\frac{2}{3}$</p>  <p>Use the rectangle below to represent a different fraction equivalent to $\frac{2}{3}$</p> 	<p>Answers will vary.</p> <p><i>Students might represent $\frac{2}{3}$ in the rectangle with vertical lines, then draw a horizontal line through the middle to make $\frac{4}{6}$.</i></p> <p><i>They might draw lines to split the rectangle into 6 parts and fill in 4. (or 6 of 9. . .)</i></p>
<p>3. Put the numbers below in order from least to greatest.</p> <p style="text-align: center;">0.371 0.080 0.842 0.36 0.8</p>	<p>Answer:</p> <p>0.080 0.36 0.371 0.8 0.842</p>

<p>4. Write a common fraction to represent 0.25</p>	<p>Answer:</p> $\frac{1}{4}$ $\frac{25}{100}$
<p>5. Write a common fraction to represent 0.37</p>	<p>Answer:</p> $\frac{37}{100}$

<p>6. Estimate the value represented by each of the letters:</p>  <p>A: _____ B: _____ C: _____ D: _____</p>	<p>Answer:</p> <p>A 0.1 B 0.6 C 1 D 1.2</p> <p>The two standard benchmarks are offered in this case are 0 and $\frac{1}{2}$.</p>
<p>7. Name 3 common fractions which are less than $\frac{1}{2}$. Represent each fraction with a visual.</p>	<p>Answer: Answers will vary</p>

<p>8. One of these situations does NOT represent a fraction. Why?</p> <p>A. Of the dozen trees, two are cedars. B. Kiel loses \$7. C. One third of the salmon have already spawned. D. Four of the five water jugs are empty.</p>	<p>Answer: B <i>\$7 represents 7 whole dollars</i> <i>All others are a part of one whole. 1 whole grove of trees, 1/3 of a salmon count, 4 of a set of 5 water jugs</i></p>
<p>9. Put these fractions in order from least to greatest.</p> <p style="text-align: center;"> $\frac{1}{2}$ $\frac{5}{8}$ $\frac{2}{6}$ $\frac{3}{4}$ </p>	<p>Answer:</p> <p style="text-align: center;"> $\frac{2}{6}$ $\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ </p>
<p>10. Write the digits 1, 2, 3, 4, 6 and 8 in the boxes to create equivalent fractions.</p> <p style="text-align: center;"> $\frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$ </p>	<p>Answer:</p> <p style="text-align: center;">1/2, 3/6, 4/8</p> <p>Note: students can use number tiles or manipulatives to represent their thinking.</p>
<p>11. Is $\frac{2}{5}$ closer to:</p> <p>a. 0 b. $\frac{1}{2}$ c. 1</p> <p>Circle your answer. Explain how you know that it is the correct answer.</p>	<p>Answer:</p> <p style="text-align: center;">$\frac{1}{2}$</p>
<p>12. Use numbers, pictures and words to show that 0.25 has the same value as $\frac{2}{8}$.</p>	<p>Answers will vary. Look for:</p> <ol style="list-style-type: none"> 1. parts of whole 2. parts of sets 3. number line representations 4. concrete examples 5. equivalent fractions

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Performance Task:

1. Choose one common fraction and one decimal number and explain how they are similar and different.
Use pictures, numbers and words to show the **depth** of your understanding.

Answers will vary.

Look for:

- parts of whole
- parts of sets
- number lines
- concrete examples
- equivalencies
- accurate partitioning
- same size whole when comparing
- arrays
- money

2. A number between 4 and 5 is slightly closer to 5 than to 4. What could the number be?
Explain your thinking in pictures, numbers and words.
(Adapted from Marian Small, *Good Questions*, 2017, p.57)

Some students will represent with numbers in decimal form. Others in fraction form.

A number line is a visual or drawing to represent thinking.

Possible responses: 4.11, 4.08, $4 \frac{5}{8}$, $4 \frac{7}{12}$