# **Fractions Comprehension Check**

For questions 1-3, match each vocabulary term to the correct definition:

|  |  |
| --- | --- |
| 1. Numerator | a. the number in a fraction that represents the total number of equal pieces in one whole |
| 2. Denominator | b. shows two or more amounts that have the same value |
| 3. Equivalent | c. the number in a fraction that represents the total number of equal pieces we are counting |

1. Numerator –
2. Denominator –
3. Equivalent –
4. Complete the table to show multiple ways to represent fractions:

|  |  |  |
| --- | --- | --- |
| **Fraction** | **Word Form** | **Fraction as a Division Situation** |
| 1/10 |  | 1 out of 10 |
| 3/4 |  |  |
| 2/6 |  |  |

1. Sara says both images show 1/3 because they have one shaded piece out of three total pieces. Is she correct? Why or why not?

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1. Draw a number line and plot the following fractions: 1/2, 1/4, 1/8. Challenge: plot 2/4 and describe what you notice.
2. Do fractions always represent parts of exactly one whole? Explain your thinking?
3. What strategy can you use to compare fractions with the same denominator, such as comparing 4/5 to 2/5?
4. What strategy can you use to compare fractions with different denominators, such as comparing 2/6 to 2/8?
5. Use a strategy of your choice to show that 4/12 is equivalent to 1/3.

# **Fractions Comprehension Check Answer Key**

For questions 1-3, match each vocabulary term to the correct definition:

|  |  |
| --- | --- |
| 1. Numerator | a. the number in a fraction that represents the total number of equal pieces in one whole |
| 2. Denominator | b. shows two or more amounts that have the same value |
| 3. Equivalent | c. the number in a fraction that represents the total number of equal pieces we are counting |

1. Numerator – c
2. Denominator – a
3. Equivalent – b
4. Complete the table to show multiple ways to represent fractions:

|  |  |  |
| --- | --- | --- |
| **Fraction** | **Word Form** | **Fraction as a Division Situation** |
| 1/10 | one tenth | 1 out of 10 |
| 3/4 | three fourths | 3 out of 4 |
| 2/6 | two sixths | 2 out of 6 |

1. Sara says both images show 1/3 because they have one shaded piece out of three total pieces. Is she correct? Why or why not?

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* 1. Students should explain that Sara is incorrect. Although both pictures show one out of three pieces shaded in, only the picture on the left shows 1/3 because all three of its pieces are equal in size.

1. Draw a number line and plot the following fractions: 1/2, 1/4, 1/8. Challenge: plot 2/4 and describe what you notice.
   1. Students should be able to draw and plot ½, ¼, and 1/8 on their number lines using what they know about doubling and halving. The challenge question asks students to plot 2/4 on the number line, as well. They should notice that 2/4 is located at the same point at ½ on the number line, therefore 2/4 and ½ are equivalent fractions.
2. Do fractions always represent parts of exactly one whole? Explain your thinking?
   1. Although fractions often refer to parts of 1 whole, sometimes fractions can refer to parts of a set. For example, a collection of 12 spools of yarn can be seen as the whole set. If 9 of those spools of yarn are green and 3 are yellow, then 9/12 of the set is green and 3/12 of the set is yellow.
3. What strategy can you use to compare fractions with the same denominator, such as comparing 4/5 to 2/5?
   1. In order to compare fractions with the same denominator, we only need to compare the numerators. This is because the pieces are the same size, making them easier to compare. 4/5 is greater than 2/5 because 4 is greater than 2.
4. What strategy can you use to compare fractions with different denominators, such as comparing 2/6 to 2/8?
   1. Students’ answers will vary. At this stage of understanding, students should be able to explain that one way to do this is to compare the fractions visually. Many will likely draw visual representations of the fractions to show 2/6 as greater than 2/8. Some students may find equivalent fractions (1/3 and 1/4) and use what they know about benchmark fractions to compare. Other students might consider the idea that the smaller denominator represents sharing among fewer groups, so it shows the larger pieces.
5. Use a strategy of your choice to show that 4/12 is equivalent to 1/3.
   1. Students’ answers will vary, however many of them will likely use visuals to partition the wholes and represent the equivalent fractions.