Assessment : Section B Checkpoint

Problem 1

Goals Assessed

- Generate equivalent fractions with the following denominators: 2, 3, 4, 5, 6, 8, 10, 12, and 100.

Statement

List two fractions that are equivalent to $\frac{3}{4}$. Explain or show your reasoning.

Solution

Sample response: $\frac{6}{8}$ and $\frac{9}{12}$. There are two $\frac{1}{8}$s in $\frac{1}{4}$, so $\frac{6}{8}$ is equivalent to $\frac{3}{4}$. There are three $\frac{1}{12}$s in $\frac{1}{4}$, so $\frac{9}{12}$ is equivalent to $\frac{3}{4}$.

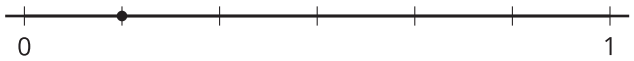
Problem 2

Goals Assessed

- Generate equivalent fractions with the following denominators: 2, 3, 4, 5, 6, 8, 10, 12, and 100.
- Use visual representations to reason about fraction equivalence, including using benchmarks such as $\frac{1}{2}$ and 1.

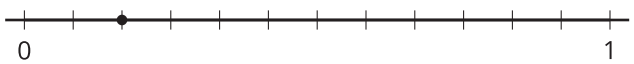
Statement

List two equivalent fractions that the point represents. Explain your reasoning.



Solution

Sample responses: $\frac{1}{6}$ and $\frac{2}{12}$. There are 6 equal parts on the number line and the point is the first tick mark so that's $\frac{1}{6}$.



The point is the second tick mark if I divide each $\frac{1}{6}$ into two equal parts. Those parts are $\frac{1}{12}$s since there are 12 in 1. So the point is also $\frac{2}{12}$.

Problem 3

Goals Assessed

- Generate equivalent fractions with the following denominators: 2, 3, 4, 5, 6, 8, 10, 12, and 100.

Statement

To show that $\frac{7}{12}$ is equivalent to $\frac{14}{24}$, Kiran wrote: $\frac{2 \times 7}{2 \times 12} = \frac{14}{24}$. Do you agree with Kiran? Explain your reasoning.

Solution

Kiran is correct. $\frac{7}{12}$ is 7 equal parts where there are 12 of those parts in a whole. If I partition each of those 12 parts into 2 smaller parts, then I get 2×7 of the smaller parts with 2×12 of them in the whole. That's $\frac{2 \times 7}{2 \times 12}$.