Name _____



# Use Benchmarks to Determine Reasonableness

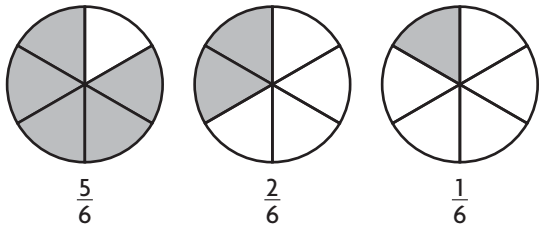
Mr. Rodriguez mixes red, blue, and white paint for a project in art class. He uses $\frac{5}{6}$ of a jar of red paint, $\frac{2}{6}$ of a jar of blue paint, and $\frac{1}{6}$ of a jar of white paint. About how many jars of paint does he use?

**A.** Write an expression to represent the situation. Possible answer: $\frac{5}{6} + \frac{2}{6} + \frac{1}{6}$

**B.** Is the problem asking for an exact answer?

No, it says "about how many."

**C.** Use benchmarks to estimate each fraction.



$\frac{5}{6}$ $\frac{2}{6}$ $\frac{1}{6}$

- $\frac{5}{6}$ is close to 1 whole because almost the whole circle is shaded.
- $\frac{2}{6}$ is close to $\frac{1}{2}$ because about $\frac{1}{2}$ of the circle is shaded.
- $\frac{1}{6}$ is close to 0 because very little of the circle is shaded.

**D.** About how much of each color paint does Mr. Rodriguez use?

about 1 jar of red, about $\frac{1}{2}$ jar of blue, and almost no white

**E.** Write an equation to estimate the total jars of paint Mr. Rodriguez uses. $1 + \frac{1}{2} + 0 = 1\frac{1}{2}$

Mr. Rodriguez uses about $1\frac{1}{2}$ jars of paint.

**Use benchmarks to estimate the sum or difference.**

**1** Adam buys a bag of dog food with a weight of $\frac{7}{8}$ pound and a bag of cat food with a weight of $1\frac{1}{8}$ pounds. Estimate the total weight of the pet food he buys.

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**2** $\frac{5}{8} + \frac{7}{8}$

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**3** $\frac{4}{5} - \frac{3}{5}$

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**4** $\frac{4}{10} + \frac{3}{10}$

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