

Sample Assessment

1. For each of the following, draw a diagram illustrating the fraction.

(a) $\frac{1}{6}$

(b) $\frac{5}{7}$

2. Write three rational numbers equal to $\frac{4}{5}$. _____

3. Reduce each of the following rational numbers to simplest form.

_____ (a) $\frac{36}{48}$

_____ (b) $\frac{(cy^3)^2}{dy^2}$

_____ (c) $\frac{0}{3}$

_____ (d) $\frac{b^2 + x}{b^3 + bx}$

4. Place $>$, $<$, or $=$ between each of the following pairs to make true sentences.

_____ (a) $\frac{4}{5}$ and $\frac{120}{150}$

_____ (b) $\frac{-6}{5}$ and $\frac{-7}{6}$

_____ (c) $\frac{-4}{20}$ and $\frac{4}{-20}$

5. Perform each of the following computations. Leave your answers in simplest form.

_____ (a) $\frac{2}{3} + \frac{4}{5}$

_____ (b) $\frac{3}{4} - \frac{2}{3}$

_____ (c) $\frac{5}{3} \cdot \frac{27}{40}$

_____ (d) $\left(3\frac{1}{4} + 7\frac{1}{8}\right) \div 8\frac{1}{2}$

6. Find the additive and multiplicative inverses for each of the following.

_____ (a) 8

_____ (b) $3\frac{1}{2}$

_____ (c) $-\frac{1}{4}$

_____ (d) $\frac{3}{8}$

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7. The ratio of boys to girls in Mr. Joiner's class is 5 to 7. If there are 15 boys in the class, how many total students are in the class?
8. Sunflower seeds are packed in packages each weighing $3\frac{1}{4}$ ounces. If there is a supply of $15\frac{1}{2}$ pounds of sunflower seeds, how many packages of seeds can be packed? How many ounces of sunflower seeds will be left over? (16 oz. = 1 pound)
9. Estimate each of the following, indicating if the actual answer is greater than or less than the estimate.

(a) $\frac{199}{198} + \frac{35}{17}$

(b) $4\frac{10}{11} + 3\frac{8}{9} + \frac{13}{14} + \frac{1}{20}$

(c) $5\frac{19}{20} - 2\frac{9}{10} + 1\frac{1}{100}$

10. Estimate by rounding the fractions.

_____ (a) $7\frac{8}{9} \cdot 5\frac{1}{13}$

_____ (b) $\frac{34\frac{9}{10}}{4\frac{9}{10}}$

_____ (c) $\frac{14\frac{19}{39}}{\frac{19}{39}}$