Estimating Sums and Differences of Fractions

In **1** through **8**, tell if each fraction is closest to 0, $\frac{1}{2}$, or 1. You may use a number line to help.

1. $\frac{1}{9}$ _____   **2.** $\frac{5}{9}$ _____   **3.** $\frac{11}{20}$ _____   **4.** $\frac{6}{10}$ _____

5. $\frac{6}{7}$ _____   **6.** $\frac{5}{12}$ _____   **7.** $\frac{3}{4}$ _____   **8.** $\frac{12}{15}$ _____

In **9** through **16**, estimate each sum or difference by replacing each fraction with 0, $\frac{1}{2}$, or 1.

9. $\frac{7}{12} + \frac{4}{5}$ **10.** $\frac{1}{12} + \frac{2}{4}$ **11.** $\frac{4}{9} - \frac{1}{6}$ **12.** $\frac{2}{6} + \frac{8}{9}$

13. $\frac{1}{6} - \frac{1}{8}$ **14.** $\frac{2}{5} - \frac{3}{7}$ **15.** $\frac{7}{8} - \frac{7}{9}$ **16.** $\frac{5}{12} + \frac{2}{5}$

17. Which is the best estimate for the difference of $\frac{9}{16} - \frac{4}{9}$?

  A $1 - 1 = 0$ **C** $1 - \frac{1}{2} = \frac{1}{2}$

  B $\frac{1}{2} - \frac{1}{2} = 0$ **D** $0 - 0 = 0$

18. Which fraction can NOT be replaced with $\frac{1}{2}$ when estimating?

  A $\frac{10}{12}$ **C** $\frac{4}{10}$

  B $\frac{2}{6}$ **D** $\frac{13}{24}$

19. Mia estimated $\frac{5}{8} + \frac{1}{9}$ by replacing $\frac{5}{8}$ with 1 and $\frac{1}{9}$ with 0. Her estimated sum was $1 + 0 = 1$. Explain why Mia's estimate is NOT accurate.

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