Name _____   Date _____

1. Use a tape diagram to represent each addend. Decompose one of the tape diagrams to make like units.
    Then, write the complete number sentence.

    a. $\frac{1}{3} + \frac{1}{6}$

    b. $\frac{1}{2} + \frac{1}{4}$

    c. $\frac{3}{4} + \frac{1}{8}$

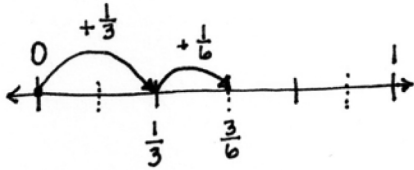   d. $\frac{1}{4} + \frac{5}{12}$

    e. $\frac{3}{8} + \frac{1}{2}$

    f. $\frac{3}{5} + \frac{3}{10}$

2. Estimate to determine if the sum is between 0 and 1 or 1 and 2. Draw a number line to model the addition. Then, write a complete number sentence. The first one has been completed for you.

a. $\frac{1}{3} + \frac{1}{6}$ $\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$

b. $\frac{3}{5} + \frac{7}{10}$

c. $\frac{5}{12} + \frac{1}{4}$

d. $\frac{3}{4} + \frac{5}{8}$

e. $\frac{7}{8} + \frac{3}{4}$

f. $\frac{1}{6} + \frac{5}{3}$

3. Solve the following addition problem without drawing a model. Show your work.

$$\frac{5}{6} + \frac{1}{3}$$

Answer Key

1. a. Tape diagrams model $\frac{1}{3} + \frac{1}{6} = \frac{2}{6} + \frac{1}{6} = \frac{3}{6}$

    b. Tape diagrams model $\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$

    c. Tape diagrams model $\frac{3}{4} + \frac{1}{8} = \frac{6}{8} + \frac{1}{8} = \frac{7}{8}$

    d. Tape diagrams model

    $\frac{1}{4} + \frac{5}{12} = \frac{3}{12} + \frac{5}{12} = \frac{8}{12}$

    e. Tape diagrams model $\frac{3}{8} + \frac{1}{2} = \frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

    f. Tape diagrams model

    $\frac{3}{5} + \frac{3}{10} = \frac{6}{10} + \frac{3}{10} = \frac{9}{10}$

2. a. Answer provided

    b. Number line models $\frac{3}{5} + \frac{7}{10}$; $\frac{6}{10} + \frac{7}{10} = \frac{13}{10}$

    c. Number line models $\frac{5}{12} + \frac{1}{4}$; $\frac{5}{12} + \frac{3}{12} = \frac{8}{12}$

    d. Number line models $\frac{3}{4} + \frac{5}{8}$; $\frac{6}{8} + \frac{5}{8} = \frac{11}{8}$

    e. Number line models $\frac{7}{8} + \frac{3}{4}$; $\frac{7}{8} + \frac{6}{8} = \frac{13}{8}$

    f. Number line models $\frac{1}{6} + \frac{5}{3}$; $\frac{1}{6} + \frac{10}{6} = \frac{11}{6}$

3. $\frac{7}{6}$