## Lesson 17

## Problem Set

1. a. $\frac{8}{5}+\frac{2}{5}=\frac{10}{5}, \frac{2}{5}+\frac{8}{5}=\frac{10}{5}, \frac{10}{5}-\frac{2}{5}=\frac{8}{5}, \frac{10}{5}-\frac{8}{5}=\frac{2}{5}$
b. $\frac{7}{8}+\frac{8}{8}=\frac{15}{8}, \frac{8}{8}+\frac{7}{8}=\frac{15}{8}, \frac{15}{8}-\frac{8}{8}=\frac{7}{8}, \frac{15}{8}-\frac{7}{8}=\frac{8}{8}$
2. a. Answer provided
b. $\frac{2}{10}$; number line models solution; solved by counting up and subtracting
c. $\frac{2}{5}$; number line models solution; solved by counting up and subtracting
d. $\frac{3}{8}$; number line models solution; solved by counting up and subtracting
e. $\frac{5}{10}$; number line models solution; solved by counting up and subtracting
f. $\frac{3}{5}$; number line models solution; solved by counting up and subtracting
3. a. Answer provided
b. $\frac{6}{6}+\frac{3}{6}=\frac{9}{6}, \frac{9}{6}-\frac{4}{6}=\frac{5}{6} ; \frac{6}{6}-\frac{4}{6}=\frac{2}{6}, \frac{2}{6}+\frac{3}{6}=\frac{5}{6}$; number bond shows $1 \frac{3}{6}$ is $\frac{6}{6}$ and $\frac{3}{6}$
c. $\frac{8}{8}+\frac{6}{8}=\frac{14}{8}, \frac{14}{8}-\frac{7}{8}=\frac{7}{8} ; \frac{8}{8}-\frac{7}{8}=\frac{1}{8}, \frac{1}{8}+\frac{6}{8}=\frac{7}{8}$; number bond shows $1 \frac{6}{8}$ is $\frac{8}{8}$ and $\frac{6}{8}$
d. $\frac{10}{10}+\frac{1}{10}=\frac{11}{10}, \frac{11}{10}-\frac{7}{10}=\frac{4}{10} ; \frac{10}{10}-\frac{7}{10}=\frac{3}{10}, \frac{3}{10}+\frac{1}{10}=\frac{4}{10}$; number bond shows $1 \frac{1}{10}$ is $\frac{10}{10}$ and $\frac{1}{10}$
e. $\frac{12}{12}+\frac{3}{12}=\frac{15}{12}, \frac{15}{12}-\frac{6}{12}=\frac{9}{12} ; \frac{12}{12}-\frac{6}{12}=\frac{6}{12}, \frac{6}{12}+\frac{3}{12}=\frac{9}{12}$; number bond shows $1 \frac{3}{12}$ is $\frac{12}{12}$ and $\frac{3}{12}$

## Exit Ticket

1. $\frac{3}{5}$; number line models solution; solved by counting up and subtracting
2. $\frac{7}{7}+\frac{2}{7}=\frac{9}{7}, \frac{9}{7}-\frac{5}{7}=\frac{4}{7} ; \frac{7}{7}-\frac{5}{7}=\frac{2}{7}, \frac{2}{7}+\frac{2}{7}=\frac{4}{7}$; number bond shows $1 \frac{2}{7}$ is $\frac{7}{7}$ and $\frac{2}{7}$

## Homework

1. a. $\frac{5}{6}+\frac{4}{6}=\frac{9}{6}, \frac{4}{6}+\frac{5}{6}=\frac{9}{6}, \frac{9}{6}-\frac{5}{6}=\frac{4}{6}, \frac{9}{6}-\frac{4}{6}=\frac{5}{6}$
b. $\frac{5}{9}+\frac{8}{9}=\frac{13}{9}, \frac{8}{9}+\frac{5}{9}=\frac{13}{9}, \frac{13}{9}-\frac{5}{9}=\frac{8}{9}, \frac{13}{9}-\frac{8}{9}=\frac{5}{9}$
2. a. $\frac{3}{8}$; number line models solution; solved by counting up and subtracting
b. $\frac{3}{5}$; number line models solution; solved by counting up and subtracting
c. $\frac{4}{6}$; number line models solution; solved by counting up and subtracting
d. $\frac{3}{4}$; number line models solution; solved by counting up and subtracting
e. $\frac{2}{3}$; number line models solution; solved by counting up and subtracting
f. $\frac{4}{5}$; Number line models solution; solved by counting up and subtracting
3. a. Answer provided
b. $\frac{8}{8}+\frac{3}{8}=\frac{11}{8}, \frac{11}{8}-\frac{7}{8}=\frac{4}{8} ; \frac{8}{8}-\frac{7}{8}=\frac{1}{8}, \frac{1}{8}+\frac{3}{8}=\frac{4}{8}$; number bond shows $1 \frac{3}{8}$ is $\frac{8}{8}$ and $\frac{3}{8}$
c. $\frac{4}{4}+\frac{1}{4}=\frac{5}{4}, \frac{5}{4}-\frac{3}{4}=\frac{2}{4} ; \frac{4}{4}-\frac{3}{4}=\frac{1}{4}, \frac{1}{4}+\frac{1}{4}=\frac{2}{4}$; number bond shows $1 \frac{1}{4}$ is $\frac{4}{4}$ and $\frac{1}{4}$
d. $\frac{7}{7}+\frac{2}{7}=\frac{9}{7}, \frac{9}{7}-\frac{5}{7}=\frac{4}{7} ; \frac{7}{7}-\frac{5}{7}=\frac{2}{7}, \frac{2}{7}+\frac{2}{7}=\frac{4}{7}$; number bond shows $1 \frac{2}{7}$ is $\frac{7}{7}$ and $\frac{2}{7}$
e. $\frac{10}{10}+\frac{3}{10}=\frac{13}{10}, \frac{13}{10}-\frac{7}{10}=\frac{6}{10} ; \frac{10}{10}-\frac{7}{10}=\frac{3}{10}, \frac{3}{10}+\frac{3}{10}=\frac{6}{10}$; number bond shows $1 \frac{3}{10}$ is $\frac{10}{10}$ and $\frac{3}{10}$
