Name _____ Date _____

1. First find a common unit, then subtract.

a. $\frac{1}{2}-\frac{1}{5}=\left(\frac{1}{2}\times\frac{5}{5}\right)-\left(\frac{1}{5}\times\frac{2}{2}\right)$

$=\frac{5}{10}-\frac{2}{10}$

$=\frac{3}{10}$

b. $\frac{7}{8}-\frac{1}{3}=\left(\frac{7}{8}\times\frac{3}{3}\right)-\left(\frac{1}{3}\times\frac{8}{8}\right)$

$=\frac{21}{24}-\frac{8}{24}$

$=\frac{13}{24}$

c. $\frac{7}{10}-\frac{3}{5}=\frac{7}{10}-\left(\frac{3}{5}\times\frac{2}{2}\right)$

$=\frac{7}{10}-\frac{6}{10}$

$=\frac{1}{10}$

d. $1\frac{5}{6}-\frac{2}{3}=1+\frac{5}{6}-\frac{2}{3}$

$=\frac{6}{6}+\frac{5}{6}-\left(\frac{2}{3}\times\frac{2}{2}\right)$

$=\frac{6}{6}+\frac{5}{6}-\frac{4}{6}$

$=\frac{7}{6}=1\frac{1}{6}$

e. $2\frac{1}{4}-1\frac{1}{5}=1\frac{1}{4}-\frac{1}{5}$

$=1+\left(\frac{1}{4}\times\frac{5}{5}\right)-\left(\frac{1}{5}\times\frac{4}{4}\right)$

$=1+\frac{5}{20}-\frac{4}{20}$

$=1\frac{1}{20}$

f. $5\frac{6}{7}-3\frac{2}{3}=2\frac{6}{7}-\frac{2}{3}$

$=2+\left(\frac{6}{7}\times\frac{3}{3}\right)-\left(\frac{2}{3}\times\frac{7}{7}\right)$

$=2+\frac{18}{21}-\frac{14}{21}$

$=2\frac{4}{21}$

g. $15\frac{7}{8}-5\frac{3}{4}=10\frac{7}{8}-\frac{3}{4}$

$=10+\frac{7}{8}-\left(\frac{3}{4}\times\frac{2}{2}\right)$

$=10+\frac{7}{8}-\frac{6}{8}$

$=10\frac{1}{8}$

h. $15\frac{5}{8}-3\frac{1}{3}=12\frac{5}{8}-\frac{1}{3}$

$=12+\left(\frac{5}{8}\times\frac{3}{3}\right)-\left(\frac{1}{3}\times\frac{8}{8}\right)$

$=12+\frac{15}{24}-\frac{8}{24}$

$=12\frac{7}{24}$

2. Sandy ate $\frac{1}{6}$ of a candy bar. John ate $\frac{3}{4}$ of it. How much more of the candy bar did John eat than Sandy?

$\frac{3}{4} - \frac{1}{6} = \left(\frac{3}{4} \times \frac{3}{3}\right) - \left(\frac{1}{6} \times \frac{2}{2}\right)$

$= \frac{9}{12} - \frac{2}{12} = \frac{7}{12}$

John ate $\frac{7}{12}$ of the candy bar more than Sandy.

3. $4\frac{1}{2}$ yards of cloth are needed to make a woman's dress. $2\frac{2}{7}$ yards of cloth are needed to make a girl's dress. How much more cloth is needed to make a woman's dress than a girl's dress?

$4\frac{1}{2} - 2\frac{2}{7} = 2\frac{1}{2} - \frac{2}{7}$

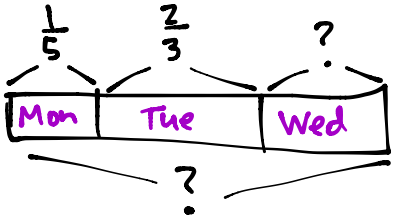
$= 2 + \left(\frac{1}{2} \times \frac{7}{7}\right) - \left(\frac{2}{7} \times \frac{2}{2}\right)$

$= 2 + \frac{7}{14} - \frac{4}{14}$

$= 2\frac{3}{14}$

To make a woman's dress, $2\frac{3}{14}$ yards more cloth is needed than a girl's dress.

4. Bill reads $\frac{1}{5}$ of a book on Monday. He reads $\frac{2}{3}$ of the book on Tuesday. If he finishes reading the book on Wednesday, what fraction of the book did he read on Wednesday?



$\frac{1}{5} + \frac{2}{3} = \left(\frac{1}{5} \times \frac{3}{3}\right) + \left(\frac{2}{3} \times \frac{5}{5}\right)$

$= \frac{3}{15} + \frac{10}{15}$

$= \frac{13}{15}$

$1 - \frac{13}{15} = \frac{2}{15}$

He read $\frac{2}{15}$ of the book on Wednesday.

5. Tank A has a capacity of 9.5 gallons. $6\frac{1}{3}$ gallons of the tank's water are poured out. How much water is left in the tank?

$9.5 - 6\frac{1}{3}$

$9\frac{1}{2} - 6\frac{1}{3} = 3\frac{1}{2} - \frac{1}{3}$

$= 3 + \left(\frac{1}{2} \times \frac{3}{3}\right) - \left(\frac{1}{3} \times \frac{2}{2}\right)$

$= 3 + \frac{3}{6} - \frac{2}{6}$

$= 3\frac{1}{6}$

There is $3\frac{1}{6}$ gallons remaining in the tank.