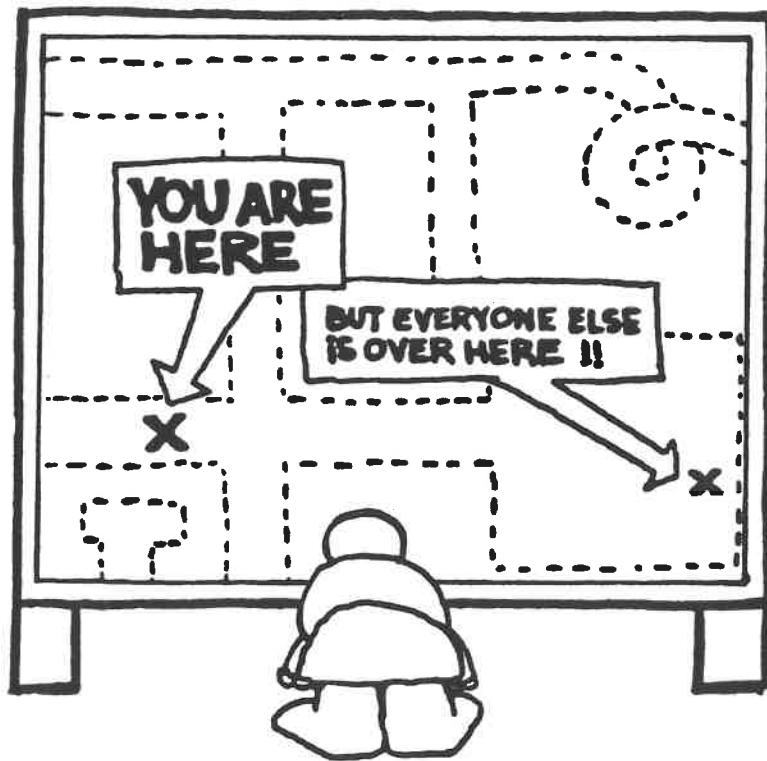


Working With Fractions



Level II

Reducing & Renaming Fractions

DEMONSTRATION PROBLEMS

Reducing

Ⓐ $\frac{6}{12} = \frac{1}{2}$ Ⓑ $\frac{4}{10} = \frac{2}{5}$

Ⓒ $\frac{10}{12} = \frac{5}{6}$ Ⓓ $\frac{5}{7} = \frac{5}{7}$

Renaming Mixed Numerals

Ⓔ $3\frac{2}{5} = \frac{17}{5}$ Ⓕ $4\frac{1}{2} = \frac{9}{2}$

Renaming Improper Fractions

Ⓖ $\frac{8}{5} = 1\frac{3}{5}$

Ⓕ $\frac{10}{4} = 2\frac{2}{4} = 2\frac{1}{2}$

Ⓖ $\frac{20}{12} = 1\frac{8}{12} = 1\frac{2}{3}$

Ⓙ $\frac{16}{4} = 4$

PROBLEM SET #1

Reduce each fraction

① $\frac{6}{12}$ ② $\frac{8}{10}$ ③ $\frac{15}{25}$

④ $\frac{14}{21}$ ⑤ $\frac{12}{30}$ ⑥ $\frac{6}{24}$

⑦ $\frac{4}{14}$

⑧ $\frac{9}{15}$

⑨ $\frac{12}{27}$

⑩ $\frac{10}{18}$

⑪ $\frac{12}{36}$

⑫ $\frac{21}{28}$

⑬ $\frac{9}{21}$

⑭ $\frac{30}{35}$

⑮ $\frac{22}{55}$

Rename mixed numerals

⑯ $2\frac{1}{4}$

⑰ $1\frac{2}{7}$

⑱ $3\frac{2}{3}$

⑲ $4\frac{5}{8}$

⑳ $2\frac{3}{5}$

㉑ $6\frac{3}{4}$

㉒ $1\frac{6}{7}$

㉓ $3\frac{1}{2}$

㉔ $4\frac{1}{6}$

㉕ $2\frac{4}{5}$

㉖ $1\frac{9}{10}$

㉗ $5\frac{2}{9}$

Rename improper fractions

㉘ $\frac{7}{5}$

㉙ $\frac{8}{3}$

㉚ $\frac{9}{2}$

㉛ $\frac{9}{6}$

㉜ $\frac{12}{10}$

㉝ $\frac{14}{8}$

㉞ $\frac{15}{12}$

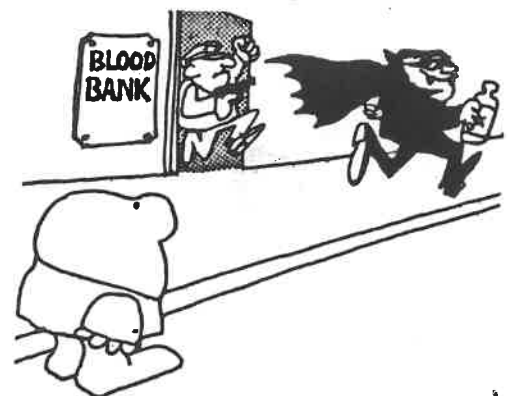
㉟ $\frac{20}{8}$

㊱ $\frac{28}{22}$

㊲ $\frac{18}{9}$

㊳ $\frac{21}{6}$

㊴ $\frac{24}{20}$



Comparing Fractions & Equivalent Fractions

DEMONSTRATION PROBLEMS

Use cross products to compare fractions

$$\textcircled{A} \quad \overset{20}{\frac{5}{7}} \square \overset{21}{\frac{3}{4}}$$

$$\textcircled{B} \quad \overset{25}{1\frac{2}{3}} \square \overset{24}{\frac{8}{5}}$$

$$\overset{25}{\frac{5}{3}} > \overset{24}{\frac{8}{5}}$$

Use cross products to determine missing values in equivalent fractions

$$\textcircled{C} \quad \overset{24}{\frac{2}{8}} = \overset{24}{\frac{3}{n}}$$

$$24 \div 2 = 12 \quad n = 12$$

PROBLEM SET #2

Supply the missing comparison sign: $>$, $<$, $=$

$$\textcircled{1} \quad \frac{2}{3} \square \frac{3}{4}$$

$$\textcircled{4} \quad \frac{3}{11} \square \frac{2}{7}$$

$$\textcircled{2} \quad \frac{5}{7} \square \frac{7}{9}$$

$$\textcircled{5} \quad \frac{4}{9} \square \frac{3}{7}$$

$$\textcircled{3} \quad \frac{2}{5} \square \frac{3}{8}$$

$$\textcircled{6} \quad 1\frac{2}{3} \square \frac{7}{4}$$

$$\textcircled{7} \quad 2\frac{1}{3} \square \frac{5}{2}$$

$$\textcircled{9} \quad \frac{9}{4} \square 2\frac{2}{5}$$

$$\textcircled{8} \quad \frac{9}{5} \square 1\frac{3}{4}$$

$$\textcircled{10} \quad 3\frac{3}{4} \square \frac{11}{3}$$

Determine the value of n

$$\textcircled{11} \quad \frac{3}{7} = \frac{n}{14}$$

$$\textcircled{16} \quad \frac{6}{n} = \frac{8}{12}$$

$$\textcircled{12} \quad \frac{2}{n} = \frac{6}{15}$$

$$\textcircled{17} \quad \frac{12}{n} = \frac{8}{10}$$

$$\textcircled{13} \quad \frac{3}{n} = \frac{12}{20}$$

$$\textcircled{18} \quad \frac{10}{15} = \frac{4}{n}$$

$$\textcircled{14} \quad \frac{6}{8} = \frac{9}{n}$$

$$\textcircled{19} \quad \frac{7}{21} = \frac{1}{n}$$

$$\textcircled{15} \quad \frac{2}{6} = \frac{3}{n}$$

$$\textcircled{20} \quad \frac{2}{8} = \frac{n}{12}$$

Reduce each fraction

$$\textcircled{21} \quad \frac{12}{28}$$

$$\textcircled{22} \quad \frac{20}{25}$$

$$\textcircled{23} \quad \frac{9}{21}$$

Rename mixed numerals

$$\textcircled{24} \quad 3\frac{1}{2}$$

$$\textcircled{25} \quad 2\frac{1}{5}$$

$$\textcircled{26} \quad 3\frac{5}{9}$$

Rename improper fractions

$$\textcircled{27} \quad \frac{16}{6}$$

$$\textcircled{28} \quad \frac{21}{7}$$

$$\textcircled{29} \quad \frac{14}{10}$$

YOU CAN'T DEDUCT YOUR BODY UNTIL YOU'VE ACTUALLY GIVEN IT TO SCIENCE !!



Adding & Subtracting Fractions

DEMONSTRATION PROBLEMS

Add and subtract

$$\textcircled{A} \frac{2}{3} + \frac{3}{4}$$

$$\begin{array}{r} \frac{2 \times 4}{3 \times 4} \quad \frac{8}{12} \\ + \frac{3 \times 3}{4 \times 3} \quad + \frac{9}{12} \\ \hline \frac{17}{12} = 1 \frac{5}{12} \end{array}$$

$$\textcircled{B} \frac{5}{8} - \frac{1}{6}$$

$$\begin{array}{r} \frac{5 \times 3}{8 \times 3} \quad \frac{15}{24} \\ - \frac{1 \times 4}{6 \times 4} \quad - \frac{4}{24} \\ \hline \frac{11}{24} \end{array}$$

PROBLEM SET #3

Add and subtract

$$\textcircled{1} \frac{2}{5} + \frac{1}{4} \quad \textcircled{4} \frac{7}{8} + \frac{3}{4}$$

$$\textcircled{2} \frac{5}{6} + \frac{3}{4} \quad \textcircled{5} \frac{1}{2} + \frac{3}{7}$$

$$\textcircled{3} \frac{5}{7} + \frac{1}{3} \quad \textcircled{6} \frac{5}{9} + \frac{5}{6}$$

$$\textcircled{7} \frac{5}{12} + \frac{7}{8}$$

$$\textcircled{8} \frac{4}{5} + \frac{2}{3}$$

$$\textcircled{9} \frac{3}{7} + \frac{2}{3}$$

$$\textcircled{10} \frac{3}{5} + \frac{9}{10}$$

$$\textcircled{11} \frac{5}{8} - \frac{1}{4}$$

$$\textcircled{12} \frac{2}{3} - \frac{1}{5}$$

$$\textcircled{13} \frac{7}{8} - \frac{5}{6}$$

$$\textcircled{14} \frac{3}{4} - \frac{1}{3}$$

$$\textcircled{15} \frac{2}{5} - \frac{1}{7}$$

$$\textcircled{16} \frac{5}{6} - \frac{7}{12}$$

$$\textcircled{17} \frac{1}{4} - \frac{1}{6}$$

$$\textcircled{18} \frac{5}{7} - \frac{1}{3}$$

$$\textcircled{19} \frac{7}{10} - \frac{1}{4}$$

$$\textcircled{20} \frac{5}{8} - \frac{1}{2}$$

Reduce

$$\textcircled{21} \frac{8}{28}$$

$$\textcircled{22} \frac{16}{24}$$

$$\textcircled{23} \frac{25}{30}$$

Rename

$$\textcircled{24} 2\frac{1}{6} = \text{improper fraction}$$

$$\textcircled{26} \frac{15}{10} = \text{mixed numeral}$$

$$\textcircled{25} 4\frac{2}{3} = \text{improper fraction}$$

$$\textcircled{27} \frac{18}{15} = \text{mixed numeral}$$

<, >, or =

Solve for n

$$\textcircled{28} \frac{3}{7} \square \frac{4}{9}$$

$$\textcircled{31} \frac{8}{10} = \frac{n}{5}$$

$$\textcircled{29} 1\frac{1}{2} \square \frac{5}{3}$$

$$\textcircled{32} \frac{6}{10} = \frac{9}{n}$$

$$\textcircled{30} 2\frac{3}{4} \square \frac{13}{5}$$

$$\textcircled{33} \frac{2}{n} = \frac{3}{18}$$

Adding & Subtracting Mixed Numerals

DEMONSTRATION PROBLEMS

Add and subtract

Ⓐ $4\frac{1}{3} + 2\frac{4}{5}$

$$\begin{array}{r} 4\frac{1}{3} \times 5 \quad 4\frac{5}{15} \\ + 2\frac{4}{5} \times 3 \quad + 2\frac{12}{15} \\ \hline 6\frac{17}{15} = 7\frac{2}{15} \end{array}$$

Ⓑ $8\frac{3}{4} - 2\frac{1}{6}$

$$\begin{array}{r} 8\frac{3}{4} \times 3 \quad 8\frac{9}{12} \\ - 2\frac{1}{6} \times 2 \quad - 2\frac{2}{12} \\ \hline 6\frac{7}{12} \end{array}$$

PROBLEM SET #4

Add and subtract

① $2\frac{2}{3} + 4\frac{3}{4}$ ⑥ $1\frac{5}{6} + 6\frac{3}{8}$

② $1\frac{5}{6} + 5\frac{1}{3}$ ⑦ $4\frac{1}{3} + 2\frac{6}{7}$

③ $4\frac{7}{10} + 2\frac{2}{15}$ ⑧ $6\frac{1}{4} + 2\frac{5}{6}$

④ $3\frac{3}{5} + 2\frac{5}{6}$ ⑨ $3\frac{7}{8} + 5\frac{1}{6}$

⑤ $4\frac{3}{8} + 2\frac{3}{4}$ ⑩ $4\frac{5}{6} + 2\frac{3}{10}$

⑪ $4\frac{2}{5} - 1\frac{1}{4}$

⑫ $7\frac{9}{10} - 3\frac{3}{4}$

⑬ $8\frac{6}{7} - 2\frac{1}{5}$

⑭ $5\frac{4}{5} - 3$

⑮ $6\frac{2}{3} - 3$

⑯ $4\frac{5}{6} - 3\frac{2}{3}$

⑰ $4\frac{5}{8} - 2\frac{1}{6}$

⑱ $7\frac{1}{3} - 3\frac{1}{4}$

⑲ $6\frac{3}{4} - 4\frac{3}{8}$

⑳ $8\frac{2}{5} - 2\frac{2}{9}$

Reduce and rename

㉑ $\frac{12}{27} =$ reduced fraction

㉒ $\frac{25}{30} =$ reduced fraction

㉓ $4\frac{3}{7} =$ improper fraction

㉔ $5\frac{1}{2} =$ improper fraction

㉕ $\frac{21}{15} =$ mixed numeral

㉖ $\frac{28}{21} =$ mixed numeral

$<$, $>$, or $=$ Solve for n

㉗ $2\frac{1}{3} \square \frac{5}{2}$ ㉘ $\frac{4}{n} = \frac{6}{9}$



Subtracting Fractions With Borrowing

DEMONSTRATION PROBLEMS

Subtract

Ⓐ $6\frac{2}{5} - 3\frac{5}{6}$

$$\begin{array}{r} 6\frac{2}{5} \times 6 \\ \times 6 \\ \hline -3\frac{5}{6} \times 5 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 5\cancel{6}^{\cancel{12}^{42}} \\ \frac{12}{30} \\ -3\frac{25}{30} \\ \hline 2\frac{17}{30} \end{array}$$



Ⓑ $7\frac{2}{3} - 1\frac{3}{4}$

$$\begin{array}{r} 7\frac{2}{3} \times 4 \\ \times 4 \\ \hline -1\frac{3}{4} \times 3 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 6\cancel{7}^{\cancel{28}^{20}} \\ \frac{8}{12} \\ -1\frac{9}{12} \\ \hline 5\frac{11}{12} \end{array}$$



Ⓒ $9 - 2\frac{4}{7}$

$$\begin{array}{r} 9 \\ -2\frac{4}{7} \\ \hline \end{array} \quad \begin{array}{r} 8\cancel{9}^{\cancel{7}} \\ \frac{7}{7} \\ -2\frac{4}{7} \\ \hline 6\frac{3}{7} \end{array}$$

PROBLEM SET #5

Subtract

① $6\frac{2}{5} - 2\frac{2}{3}$ ④ $7\frac{3}{8} - 2\frac{3}{4}$

② $8\frac{1}{4} - 3\frac{5}{6}$ ⑤ $5\frac{1}{3} - 1\frac{1}{4}$

③ $5 - 2\frac{5}{7}$ ⑥ $8 - 3\frac{3}{5}$

⑦ $6\frac{1}{2} - 2\frac{2}{3}$ ⑫ $6\frac{3}{4} - 2\frac{7}{8}$

⑧ $9\frac{7}{10} - 5\frac{1}{4}$ ⑬ $6 - 1\frac{7}{9}$

⑨ $8\frac{3}{4} - 1\frac{5}{6}$ ⑭ $4\frac{3}{8} - 2\frac{2}{3}$

⑩ $9\frac{1}{4} - 2\frac{1}{3}$ ⑮ $9\frac{3}{5} - 2\frac{3}{4}$

⑪ $7\frac{2}{7} - 1\frac{2}{3}$ ⑯ $6\frac{1}{3} - 1\frac{5}{6}$

Add

⑰ $4\frac{3}{8} + 2\frac{2}{3}$ ⑲ $2\frac{1}{3} + 6\frac{4}{5}$

⑱ $6\frac{1}{4} + 3\frac{7}{8}$ ⑳ $1\frac{1}{2} + 5\frac{5}{9}$

Reduce and rename

㉑ $\frac{20}{24}$ = fraction reduced

㉒ $\frac{18}{27}$ = fraction reduced

㉓ $4\frac{1}{4}$ = improper fraction

㉔ $2\frac{5}{6}$ = improper fraction

㉕ $\frac{26}{8}$ = mixed numeral

㉖ $\frac{30}{12}$ = mixed numeral

<, >, or =

㉗ $\frac{5}{11} \square \frac{7}{16}$

㉘ $1\frac{5}{7} \square \frac{9}{5}$

Solve for n

㉙ $\frac{4}{n} = \frac{5}{15}$ ㉚ $\frac{4}{6} = \frac{n}{15}$
5

Multiplying Fractions

DEMONSTRATION PROBLEMS

Multiply

Ⓐ $\frac{2}{3} \times \frac{1}{5}$

$$\frac{2}{3} \times \frac{1}{5} = \frac{2}{15}$$

Ⓑ $\frac{3}{4} \times \frac{3}{5}$

$$\frac{3}{4} \times \frac{3}{5} = \frac{9}{20}$$

Ⓒ $\frac{3}{4} \times \frac{4}{5}$

$$\frac{3}{4} \times \frac{4}{5} = \frac{12}{20} = \frac{3}{5}$$

Ⓓ $\frac{5}{6} \times 3$

$$\frac{5}{6} \times 3 = \frac{15}{6} = 2\frac{1}{2}$$

PROBLEM SET #6

Multiply

① $\frac{2}{5} \times \frac{1}{3}$

⑥ $\frac{2}{3} \times \frac{5}{6}$

② $\frac{3}{4} \times \frac{3}{5}$

⑦ $\frac{1}{10} \times \frac{2}{5}$

③ $\frac{1}{5} \times \frac{2}{7}$

⑧ $\frac{1}{2} \times 6$

④ $\frac{5}{6} \times \frac{1}{2}$

⑨ $\frac{5}{8} \times 8$

⑤ $\frac{3}{4} \times \frac{2}{5}$

⑩ $\frac{2}{7} \times \frac{5}{8}$

⑪ $\frac{3}{4} \times \frac{5}{6}$

⑫ $\frac{3}{5} \times \frac{5}{6}$

⑬ $\frac{2}{9} \times \frac{3}{5}$

⑭ $\frac{1}{9} \times \frac{3}{4}$

⑮ $\frac{1}{4} \times \frac{1}{3}$

⑯ $\frac{9}{10} \times \frac{2}{5}$

⑰ $\frac{3}{8} \times 4$

⑱ $\frac{1}{8} \times \frac{4}{5}$

⑲ $\frac{2}{3} \times 5$

⑳ $\frac{3}{7} \times \frac{7}{9}$

Reduce and rename

㉑ $\frac{18}{21}$ = fraction reduced

㉒ $3\frac{2}{5}$ = improper fraction

㉓ $\frac{24}{9}$ = mixed numeral

<, >, or = Solve for n

㉔ $\frac{8}{12} \square \frac{6}{9}$

㉕ $\frac{6}{10} = \frac{9}{n}$

Add

㉖ $\frac{3}{4} + \frac{3}{5}$

㉗ $2\frac{1}{3} + 1\frac{3}{4}$

Subtract

㉘ $5\frac{2}{5} - 2\frac{2}{3}$

㉙ $6\frac{1}{4} - 1\frac{5}{6}$



Multiplying Fractions With Cross Reducing

DEMONSTRATION PROBLEMS

multiply

$$\textcircled{A} \frac{4}{15} \times \frac{5}{7}$$

$$\frac{4}{\cancel{3}15} \times \frac{\cancel{5}}{7} = \frac{4}{21}$$

$$\textcircled{B} \frac{6}{9} \times \frac{1}{5}$$

$$\frac{\cancel{2}6}{\cancel{3}9} \times \frac{1}{5} = \frac{2}{15}$$

$$\textcircled{C} \frac{8}{12} \times \frac{15}{16}$$

$$\frac{\cancel{2}8}{\cancel{3}12} \times \frac{15}{16}$$

$$\frac{\cancel{1}2}{\cancel{3}8} \times \frac{\cancel{5}15}{\cancel{4}16} = \frac{5}{8}$$

$$\textcircled{D} \frac{6}{9} \times 18$$

$$\frac{\cancel{6}}{\cancel{3}9} \times \cancel{2}18 = 12$$

PROBLEM SET #7

Multiply

$$\textcircled{1} \frac{5}{6} \times \frac{7}{10} \quad \textcircled{3} \frac{7}{25} \times \frac{10}{21}$$

$$\textcircled{2} \frac{12}{13} \times \frac{5}{24} \quad \textcircled{4} \frac{6}{7} \times \frac{14}{15}$$

$$\textcircled{5} \frac{8}{12} \times \frac{4}{5}$$

$$\textcircled{6} \frac{4}{7} \times \frac{12}{15}$$

$$\textcircled{7} \frac{8}{9} \times \frac{3}{10}$$

$$\textcircled{8} \frac{9}{10} \times \frac{4}{15}$$

$$\textcircled{9} 6 \times \frac{3}{4}$$

$$\textcircled{10} \frac{3}{8} \times 12$$

$$\textcircled{11} \frac{12}{13} \times \frac{13}{18}$$

$$\textcircled{12} \frac{16}{21} \times \frac{7}{24}$$

$$\textcircled{13} \frac{2}{5} \times 10$$

$$\textcircled{14} 14 \times \frac{4}{7}$$

$$\textcircled{15} \frac{9}{11} \times \frac{22}{27}$$

$$\textcircled{16} \frac{8}{9} \times \frac{12}{24}$$

$$\textcircled{17} \frac{12}{55} \times \frac{11}{18}$$

$$\textcircled{18} \frac{14}{15} \times \frac{10}{21}$$

$$\textcircled{19} \frac{8}{15} \times \frac{5}{12}$$

$$\textcircled{20} \frac{9}{18} \times \frac{4}{6}$$

Review problems

$$\textcircled{21} \frac{21}{35} = \text{fraction reduced}$$

$$\textcircled{22} 4\frac{2}{3} = \text{improper fraction}$$

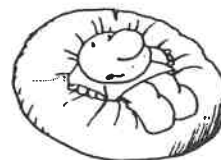
$$\textcircled{23} \frac{26}{14} = \text{mixed numeral}$$

$$\textcircled{24} 2\frac{2}{5} \square \frac{7}{3} \quad \textcircled{25} \frac{4}{10} = \frac{1}{5}$$

$$\textcircled{26} 1\frac{3}{8} + 2\frac{3}{4} \quad \textcircled{27} 4\frac{1}{3} + 3\frac{5}{7}$$

$$\textcircled{28} 9 - 2\frac{4}{5} \quad \textcircled{29} 6\frac{3}{8} - 2\frac{5}{6}$$

$$\textcircled{30} 4\frac{1}{2} - 1\frac{6}{7} \quad \textcircled{31} 8\frac{2}{3} - 4\frac{4}{5}$$



...AN OVERSTUFFED CHAIR
IS ANY CHAIR I HAPPEN
TO SIT IN !..

Multiplying Fractions & Mixed Numerals

DEMONSTRATION PROBLEMS

Multiply

$$\textcircled{A} 2\frac{2}{5} \times 1\frac{7}{8}$$

$$\begin{array}{r} 3\cancel{12} \\ 1\cancel{5} \end{array} \times \begin{array}{r} 3\cancel{15} \\ 2\cancel{8} \end{array} = \frac{9}{2} = 4\frac{1}{2}$$

$$\textcircled{B} \frac{12}{16} \times 1\frac{4}{5}$$

$$\begin{array}{r} 3\cancel{12} \\ 4\cancel{16} \end{array} \times \frac{9}{5} = \frac{27}{5} = 5\frac{2}{5}$$

$$\textcircled{C} 2\frac{1}{4} \times 6$$

$$\begin{array}{r} 9 \\ 2\cancel{4} \end{array} \times 3\cancel{6} = \frac{27}{2} = 13\frac{1}{2}$$

$$\textcircled{13} 12 \times 1\frac{1}{8}$$

$$\textcircled{17} \frac{7}{21} \times 2\frac{1}{2}$$

$$\textcircled{14} 1\frac{1}{6} \times 8$$

$$\textcircled{18} 1\frac{2}{3} \times \frac{10}{16}$$

$$\textcircled{15} 1\frac{2}{5} \times \frac{10}{11}$$

$$\textcircled{19} 1\frac{5}{6} \times \frac{9}{11}$$

$$\textcircled{16} \frac{15}{16} \times 2\frac{2}{3}$$

$$\textcircled{20} 1\frac{7}{8} \times 2\frac{2}{5}$$

Review

$$\textcircled{21} \frac{18}{24} = \text{fraction reduced}$$

$$\textcircled{22} 6\frac{2}{5} = \text{improper fraction}$$

$$\textcircled{23} \frac{28}{16} = \text{mixed numeral}$$

$$\textcircled{24} 2\frac{2}{3} \square \frac{5}{2}$$

$$\textcircled{27} 3\frac{7}{8} + 4\frac{1}{6}$$

$$\textcircled{25} \frac{7}{6} = \frac{6}{4}$$

$$\textcircled{28} 7\frac{2}{3} - 4\frac{4}{5}$$

$$\textcircled{26} 2\frac{1}{4} + 5\frac{5}{6}$$

$$\textcircled{29} 8\frac{2}{5} - 1\frac{3}{4}$$

PROBLEM SET #8

Multiply

$$\textcircled{1} 1\frac{3}{5} \times 1\frac{1}{4}$$

$$\textcircled{7} \frac{12}{15} \times 1\frac{2}{5}$$

$$\textcircled{2} 4\frac{1}{2} \times 1\frac{7}{9}$$

$$\textcircled{8} 1\frac{1}{3} \times \frac{10}{15}$$

$$\textcircled{3} \frac{3}{4} \times 2\frac{2}{3}$$

$$\textcircled{9} 1\frac{1}{4} \times 6$$

$$\textcircled{4} 4\frac{2}{3} \times 1\frac{2}{7}$$

$$\textcircled{10} 8 \times 1\frac{1}{6}$$

$$\textcircled{5} 2\frac{1}{2} \times \frac{3}{10}$$

$$\textcircled{11} 1\frac{3}{7} \times \frac{14}{15}$$

$$\textcircled{6} \frac{8}{21} \times 1\frac{3}{4}$$

$$\textcircled{12} 1\frac{7}{9} \times \frac{3}{20}$$



Dividing Fractions

DEMONSTRATION PROBLEMS

Divide

$$\textcircled{A} \frac{3}{4} \div \frac{7}{8}$$

$$\frac{3}{4} \times \frac{8}{7} = \frac{6}{7}$$

$$\textcircled{B} \frac{4}{5} \div \frac{3}{10}$$

$$\frac{4}{5} \times \frac{10}{3} = \frac{8}{3} = 2\frac{2}{3}$$

$$\textcircled{C} \frac{5}{9} \div \frac{5}{12}$$

$$\frac{5}{9} \times \frac{12}{5} = \frac{4}{3} = 1\frac{1}{3}$$

$$\textcircled{D} \frac{5}{6} \div 10$$

$$\frac{5}{6} \times \frac{1}{10} = \frac{1}{12}$$

PROBLEM SET #9

Divide

$$\textcircled{1} \frac{5}{6} \div \frac{2}{3} \quad \textcircled{5} \frac{5}{12} \div \frac{10}{11}$$

$$\textcircled{2} \frac{7}{8} \div \frac{1}{4} \quad \textcircled{6} \frac{4}{9} \div \frac{1}{6}$$

$$\textcircled{3} \frac{3}{7} \div \frac{5}{7} \quad \textcircled{7} \frac{9}{10} \div \frac{3}{5}$$

$$\textcircled{4} \frac{8}{9} \div \frac{5}{6} \quad \textcircled{8} \frac{5}{12} \div \frac{5}{9}$$

$$\textcircled{9} \frac{4}{7} \div 8 \quad \textcircled{15} \frac{8}{9} \div 4$$

$$\textcircled{10} \frac{5}{6} \div 10 \quad \textcircled{16} \frac{3}{8} \div 6$$

$$\textcircled{11} \frac{7}{9} \div \frac{2}{3} \quad \textcircled{17} \frac{5}{6} \div \frac{10}{21}$$

$$\textcircled{12} \frac{7}{12} \div \frac{7}{8} \quad \textcircled{18} \frac{14}{15} \div \frac{7}{10}$$

$$\textcircled{13} \frac{5}{8} \div \frac{3}{4} \quad \textcircled{19} \frac{3}{4} \div \frac{9}{10}$$

$$\textcircled{14} \frac{2}{3} \div \frac{8}{9} \quad \textcircled{20} \frac{3}{7} \div \frac{9}{14}$$

Review

$$\textcircled{21} \frac{21}{28} = \text{fraction reduced}$$

$$\textcircled{22} 4\frac{5}{6} = \text{improper fraction}$$

$$\textcircled{23} \frac{18}{8} = \text{mixed numeral}$$

$$\textcircled{24} \frac{7}{3} \square 2\frac{1}{4} \quad \textcircled{28} 9 - 3\frac{4}{7}$$

$$\textcircled{25} \frac{n}{4} = \frac{10}{5} \quad \textcircled{29} 5\frac{2}{5} - 2\frac{3}{4}$$

$$\textcircled{26} 2\frac{1}{4} + 3\frac{2}{3} \quad \textcircled{30} 1\frac{1}{5} \times 1\frac{7}{8}$$

$$\textcircled{27} 6\frac{5}{8} + 2\frac{5}{6} \quad \textcircled{31} 2\frac{1}{3} \times \frac{9}{14}$$



Dividing Fractions & Mixed Numerals

DEMONSTRATION PROBLEMS

Divide

Ⓐ $1\frac{1}{5} \div 1\frac{4}{5}$

$$\frac{6}{5} \div \frac{9}{5}$$

$$\frac{2\cancel{6}}{1\cancel{5}} \times \frac{1\cancel{5}}{3\cancel{9}} = \frac{2}{3}$$

Ⓑ $10 \div \frac{5}{6}$

$$2\cancel{10} \times \frac{6}{1\cancel{6}} = 12$$

Ⓒ $2\frac{2}{3} \div 6$

$$\frac{4\cancel{8}}{3} \times \frac{1}{3\cancel{6}} = \frac{4}{9}$$

Ⓓ $4\frac{1}{2} \div 1\frac{7}{8}$

$$\frac{9}{2} \div \frac{15}{8}$$

$$\frac{3\cancel{9}}{1\cancel{2}} \times \frac{4\cancel{8}}{5\cancel{15}} = \frac{12}{5} = 2\frac{2}{5}$$

⑦ $2\frac{2}{5} \div 1\frac{1}{8}$

⑭ $2\frac{2}{3} \div 1\frac{5}{9}$

⑧ $4\frac{2}{3} \div 1\frac{1}{7}$

⑮ $6 \div 1\frac{3}{5}$

⑨ $3\frac{3}{4} \div 10$

⑯ $9 \div 1\frac{5}{7}$

⑩ $1\frac{5}{7} \div 8$

⑰ $1\frac{3}{11} \div \frac{21}{22}$

⑪ $1\frac{4}{5} \div 2\frac{2}{5}$

⑱ $2\frac{2}{5} \div \frac{9}{10}$

⑫ $1\frac{5}{7} \div 1\frac{1}{14}$

⑲ $4\frac{2}{3} \div 7$

⑬ $5\frac{1}{3} \div 1\frac{5}{7}$

⑳ $2\frac{1}{4} \div 6$

Review

㉑ $\frac{15}{45} =$ fraction reduced

㉒ $7\frac{1}{6} =$ improper fraction

㉓ $\frac{16}{10} =$ mixed numeral

㉔ $2\frac{1}{4} \square \frac{11}{5}$

㉘ $9\frac{2}{3} - 3\frac{7}{8}$

㉕ $\frac{12}{3} = \frac{11}{5}$

㉙ $8\frac{2}{5} - 4\frac{3}{4}$

㉖ $3\frac{3}{8} + 2\frac{3}{4}$

㉚ $1\frac{2}{7} \times \frac{14}{15}$

㉗ $5\frac{1}{4} + 5\frac{5}{6}$

㉛ $1\frac{3}{4} \times 1\frac{5}{7}$

PROBLEM SET #10

Divide

① $1\frac{3}{5} \div 2\frac{2}{5}$

④ $1\frac{3}{4} \div 2\frac{1}{10}$

② $3\frac{3}{4} \div 1\frac{1}{14}$

⑤ $8 \div 1\frac{1}{3}$

③ $4\frac{1}{2} \div 7\frac{1}{2}$

⑥ $6 \div 1\frac{4}{5}$



Reviewing Operations With Fractions

PROBLEM SET #11

Reduce

① $\frac{15}{45}$ ② $\frac{16}{24}$

Rename as improper fraction

③ $3\frac{3}{4}$ ④ $1\frac{4}{5}$

Rename as mixed numeral

⑤ $\frac{14}{10}$ ⑥ $\frac{8}{6}$

<, >, or =

⑦ $3\frac{1}{2} \square \frac{10}{3}$ ⑧ $\frac{8}{5} \square 1\frac{2}{3}$

Solve for n

⑨ $\frac{4}{6} = \frac{n}{9}$ ⑩ $\frac{6}{n} = \frac{4}{10}$

Indicate the reciprocal

⑪ 6 ⑫ $2\frac{1}{5}$

Add

⑬ $\frac{2}{3} + \frac{3}{4}$ ⑭ $2\frac{1}{4} + 5\frac{5}{6}$

Subtract

⑮ $\frac{3}{5} - \frac{1}{3}$ ⑯ $3\frac{1}{2} - 1\frac{1}{3}$

⑰ $6 - 3\frac{1}{4}$ ⑱ $4\frac{1}{3} - 1\frac{2}{5}$

⑲ $8\frac{1}{4} - 3\frac{1}{2}$ ⑳ $6\frac{1}{8} - 1\frac{1}{3}$

multiply

⑳ $\frac{14}{25} \times \frac{10}{21}$ ㉒ $1\frac{2}{3} \times 6$

㉓ $1\frac{1}{2} \times \frac{5}{6}$ ㉔ $1\frac{1}{3} \times 4\frac{1}{2}$

Divide

㉕ $\frac{1}{2} \div \frac{3}{4}$ ㉖ $\frac{2}{3} \div 6$

㉗ $2\frac{1}{2} \div 1\frac{1}{2}$ ㉘ $6 \div 1\frac{1}{2}$

㉙ $3\frac{1}{3} \div 7\frac{1}{2}$ ㉚ $2\frac{1}{2} \div 3\frac{3}{4}$



PROBLEM SET #12

Reduce

① $\frac{8}{22}$ ② $\frac{20}{25}$

Rename as improper fraction

③ $4\frac{1}{5}$ ④ $2\frac{5}{6}$

Rename as mixed numeral

⑤ $\frac{12}{8}$ ⑥ $\frac{18}{10}$

<, >, or =

⑦ $2\frac{1}{3} \square \frac{5}{2}$ ⑧ $\frac{8}{3} \square 2\frac{3}{4}$

Solve for n

⑨ $\frac{4}{12} = \frac{3}{n}$ ⑩ $\frac{3}{12} = \frac{n}{8}$

Indicate the reciprocal

⑪ 8 ⑫ $3\frac{3}{8}$

Add

⑬ $\frac{1}{3} + \frac{1}{4}$ ⑭ $3\frac{2}{5} + 1\frac{2}{3}$

Subtract

⑮ $\frac{5}{6} - \frac{3}{4}$ ⑯ $4\frac{2}{7} - 1\frac{1}{5}$

⑰ $8 - 2\frac{4}{5}$ ⑱ $6\frac{2}{3} - 2\frac{5}{6}$

⑲ $7\frac{2}{3} - 1\frac{3}{4}$ ⑳ $5\frac{1}{6} - 2\frac{1}{4}$

Multiply

㉑ $\frac{12}{15} \times \frac{5}{18}$ ㉒ $2\frac{1}{4} \times 8$

㉓ $\frac{5}{22} \times 2\frac{3}{4}$ ㉔ $2\frac{1}{3} \times 1\frac{5}{7}$

Divide

㉕ $\frac{2}{3} \div \frac{2}{5}$ ㉖ $\frac{4}{5} \div 8$

㉗ $2\frac{1}{3} \div 3\frac{1}{2}$ ㉘ $8 \div 1\frac{1}{3}$

㉙ $2\frac{1}{4} \div 1\frac{1}{2}$ ㉚ $2\frac{2}{3} \div 3\frac{1}{3}$



SOMETIMES I THINK
THAT IF I EVER LOST
MY MIND...
...I'D NEVER MISS IT
!!

PROBLEM SET #13

Reduce

① $\frac{12}{48}$ ② $\frac{14}{35}$

Rename as improper fraction

③ $2\frac{2}{3}$ ④ $3\frac{1}{4}$

Rename as mixed numeral

⑤ $\frac{20}{16}$ ⑥ $\frac{24}{14}$

<, >, or =

⑦ $1\frac{3}{4} \square \frac{5}{3}$ ⑧ $\frac{7}{3} \square 2\frac{1}{2}$

Solve for n

⑨ $\frac{n}{15} = \frac{6}{10}$ ⑩ $\frac{2}{12} = \frac{3}{n}$

Indicate the reciprocal

⑪ 3 ⑫ $4\frac{1}{2}$

Add

⑬ $\frac{1}{2} + \frac{3}{8}$ ⑭ $4\frac{3}{4} + 3\frac{2}{7}$

Subtract

⑮ $\frac{2}{3} - \frac{1}{8}$ ⑯ $5\frac{3}{4} - 2\frac{2}{3}$

⑰ $7 - 5\frac{2}{3}$ ⑱ $8\frac{1}{6} - 3\frac{1}{4}$

⑲ $9\frac{3}{8} - 4\frac{5}{6}$ ㉚ $4\frac{1}{3} - 2\frac{3}{5}$

Multiply

㉑ $\frac{9}{20} \times \frac{10}{15}$ ㉒ $1\frac{1}{2} \times 10$
12

$$\textcircled{23} \frac{9}{14} \times 2\frac{1}{3}$$

$$\textcircled{24} 2\frac{2}{3} \times 1\frac{1}{2}$$

Divide

$$\textcircled{25} \frac{4}{5} \div \frac{1}{3}$$

$$\textcircled{26} \frac{3}{4} \div 6$$

$$\textcircled{27} 1\frac{2}{3} \div 1\frac{3}{7}$$

$$\textcircled{28} 4 \div 1\frac{5}{7}$$

$$\textcircled{29} 1\frac{1}{4} \div 1\frac{7}{8}$$

$$\textcircled{30} 2\frac{1}{4} \div 1\frac{1}{5}$$



Working With Fractions

Level II: Activity Sheet

① $2\frac{2}{5} \div 1\frac{1}{5}$

② $1\frac{7}{8} \div 1\frac{1}{4}$

③ $3\frac{1}{3} \div 5$

④ $4\frac{1}{2} \div 6$

⑤ $\frac{3}{4} \times 1\frac{1}{9}$

⑥ $\frac{5}{9} \times 2\frac{1}{10}$

⑦ $1\frac{1}{6} \times 1\frac{1}{7}$

⑧ $2\frac{1}{4} \times 1\frac{1}{15}$

⑨ $8\frac{2}{5} - 3\frac{2}{3}$

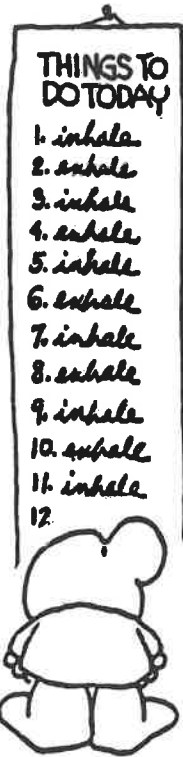
⑩ $7\frac{3}{4} - 4\frac{7}{8}$

⑪ $8 - 2\frac{3}{7}$

⑫ $6 - 3\frac{4}{5}$

⑬ $5\frac{3}{8} + 6\frac{5}{12}$

⑭ $9\frac{2}{3} + 3\frac{3}{4}$



⑲ $1\frac{3}{4} \square \frac{9}{5}$

⑳ $2\frac{2}{3} \square \frac{11}{4}$

㉑ $\frac{4}{10} = \frac{n}{15}$

㉒ $\frac{n}{15} = \frac{4}{6}$

㉓ $8 \div 1\frac{1}{3}$

㉔ $12 \div 1\frac{1}{5}$

㉕ $1\frac{1}{4} \div 2\frac{1}{2}$

㉖ $2\frac{2}{3} \div 1\frac{7}{9}$

㉗ $\frac{15}{16} \times \frac{24}{25}$

㉘ $\frac{8}{9} \times \frac{15}{16}$

㉙ $2\frac{2}{5} \times 1\frac{7}{8}$

㉚ $1\frac{1}{8} \times 3\frac{1}{3}$

㉛ $9\frac{1}{4} - 6\frac{5}{6}$

㉜ $8\frac{2}{3} - 3\frac{3}{4}$

㉝ $4\frac{2}{9} + 8\frac{2}{3}$

㉞ $5\frac{5}{12} + 7\frac{3}{8}$

⑮ $\frac{16}{20} =$ fraction reduced

⑯ $\frac{21}{28} =$ fraction reduced

⑰ $2\frac{3}{8} =$ improper fraction

⑱ $5\frac{2}{3} =$ improper fraction

⑲ $\frac{12}{8} =$ mixed numeral

⑳ $\frac{21}{12} =$ mixed numeral

