

FRACTION REVIEW

def

FRACTION IS A PART OF A WHOLE

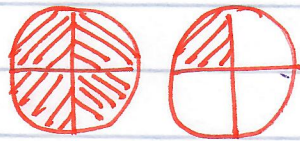

$$= \frac{1}{4} \leftarrow 1 \text{ PART}$$

$4 \leftarrow 4 \text{ PARTS TO MAKE A WHOLE}$

$$\frac{1}{4} \leftarrow \text{NUMERATOR}$$
$$4 \leftarrow \text{DENOMINATOR}$$

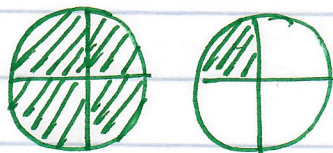
def

IMPROPER FRACTION - NUMERATOR (TOP) IS BIGGER THAN DENOMINATOR (BOTTOM) VALUE IS GREATER THAN 1.

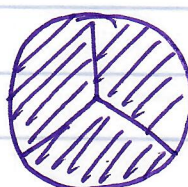

$$= \frac{5}{4}$$

def

MIXED NUMBER: WHOLE NUMBER AND A FRACTION TOGETHER


$$= 1 \frac{1}{4}$$

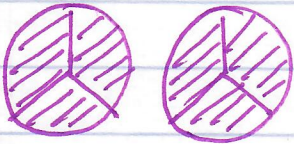
IF THE NUMERATOR (TOP) = DENOMINATOR (BOTTOM)

$$= 1$$

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

TO CHANGE A WHOLE NUMBER INTO A FRACTION, USE A DENOMINATOR OF 1

$$5 = \frac{5}{1}$$

THE FRACTION BAR = \div

$$\frac{6}{3} = 6 \div 3 = 2$$


IF THE NUMERATOR ^(TOP) IS LESS THAN THE DENOMINATOR (BOTTOM), THE FRACTION IS LESS THAN 1.

$$\frac{1}{3}$$


MIXED NUMBERS INTO IMPROPER FRACTIONS

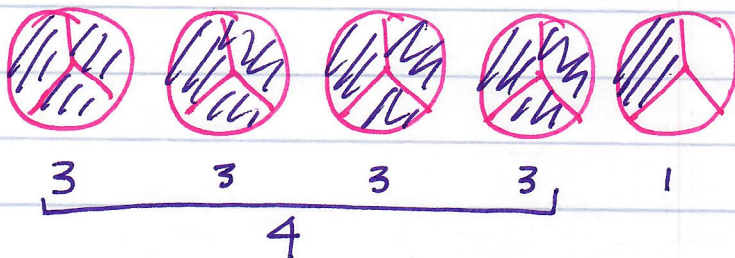
MIXED #

$$4 \frac{1}{3}$$

\Rightarrow

IMPROPER

$$\frac{13}{3}$$



YOU TRY:

$$1) 3 \frac{1}{2} = \frac{7}{2}$$

$$2) 2 \frac{1}{3} = \frac{7}{3}$$

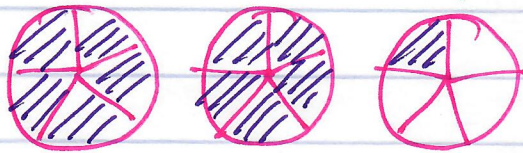
$$3) 5 \frac{2}{7} = \frac{37}{7}$$

$$4) 12 \frac{1}{12} = \frac{145}{12}$$



IMPROPER FRACTION INTO A MIXED NUMBER

$$\frac{11}{5} = 2\frac{1}{5} \quad 5 \overline{)11} \begin{array}{r} 2 \\ \underline{-10} \\ 1 \end{array} \quad \frac{11}{5} = 2\frac{1}{5}$$



YOU TRY:

$$1) \frac{20}{7} = 2\frac{6}{7}$$
$$7 \overline{)20} \begin{array}{r} 2 \\ \underline{-14} \\ 6 \end{array}$$

$$2) \frac{33}{4} = 8\frac{1}{4}$$
$$4 \overline{)33} \begin{array}{r} 8 \\ \underline{-32} \\ 1 \end{array}$$

$$3) \frac{13}{2} = 6\frac{1}{2}$$
$$2 \overline{)13} \begin{array}{r} 6 \\ \underline{-12} \\ 1 \end{array}$$

$$4) \frac{17}{3} = 5\frac{2}{3}$$
$$3 \overline{)17} \begin{array}{r} 5 \\ \underline{-15} \\ 2 \end{array}$$

$$5) \frac{40}{8} = 5$$
$$8 \overline{)40} \begin{array}{r} 5 \\ \underline{-40} \\ 0 \end{array}$$

$$6) \frac{48}{7} = 6\frac{6}{7}$$
$$7 \overline{)48} \begin{array}{r} 6 \\ \underline{-42} \\ 6 \end{array}$$

SIMPLIFYING FRACTIONS

DIVIDE BY THE GCF SO THE ONLY COMMON FACTOR BETWEEN THE NUMERATOR (TOP) AND DENOMINATOR (BOTTOM) IS 1.

$$\frac{4}{8} \div 2 = \frac{2}{4} \div 2 = \frac{1}{2} \quad \begin{array}{r} 2 \overline{)4/8} \\ 2 \overline{)2/4} \end{array}$$

SIMPLEST FORM LOWEST TERMS $\frac{1}{2}$

YOU TRY:

$$1) \frac{5 \div 5}{15 \div 5} = \frac{5 \cancel{5} \ 15}{1 \ 3}$$

$$\boxed{\frac{1}{3}}$$

$$2) \frac{12}{24} = \frac{6 \cancel{12} \ 24}{2 \cancel{2} \ 4}$$

$$\boxed{\frac{1}{2}}$$

$$3) \frac{6}{24} = \frac{2 \cancel{6} \ 24}{3 \cancel{3} \ 12}$$

$$\boxed{\frac{1}{4}}$$

$$4) \frac{50}{70} = \frac{10 \cancel{50} \ 70}{5 \ 7}$$

$$\boxed{\frac{5}{7}}$$

$$5) \frac{21}{24} = \frac{3 \cancel{21} \ 24}{7 \ 8}$$

$$\boxed{\frac{7}{8}}$$

$$6) \frac{504}{522} =$$

$$\begin{array}{r} 2 \overline{) 504} \quad 522 \\ 9 \overline{) 252} \quad 261 \\ \hline 28 \quad 29 \end{array}$$

$$\begin{array}{r} 28 \\ 9 \overline{) 252} \\ -18 \downarrow \\ \hline 72 \end{array}$$

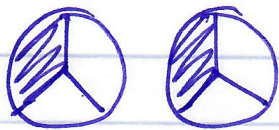
$$\begin{array}{r} 29 \\ 9 \overline{) 261} \\ -18 \downarrow \\ \hline 81 \\ -81 \\ \hline 0 \end{array}$$

$$\boxed{\frac{28}{29}}$$

ADDING + SUBTRACTING FRACTIONS

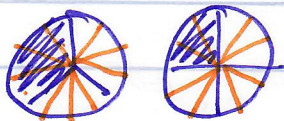
$$\frac{1}{3} + \frac{1}{3}$$

← LIKE DENOMINATORS



$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$

$$\frac{1}{3} + \frac{1}{4} =$$



$$\begin{array}{r} 1 \overline{) 3} \quad 4 \\ \times 3 \quad \times 4 \end{array}$$

$$\frac{1}{3} \frac{4}{4} = \frac{4}{12}$$

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

$$\frac{4}{12} + \frac{3}{12} = \boxed{\frac{7}{12}}$$

$$1) \frac{1}{8} + \frac{4}{8} = \frac{5}{8}$$

$$2) \frac{5}{8} + \frac{3}{10} = \begin{array}{r} 2 \overline{) 8} \quad 10 \\ \times 4 \quad \times 5 \end{array}$$

$$\frac{5 \times 5}{8 \times 5} = \frac{25}{40}$$

$$\frac{3 \times 4}{10 \times 4} = \frac{12}{40}$$

$$\boxed{\frac{37}{40}}$$

$$3) \frac{1}{2} + \frac{3}{8} =$$

$$\frac{2 \mid 2 \quad 8}{\times 1 \times 4} = 8$$

$$\frac{1 \times 4}{2} = \frac{4}{8} \quad \boxed{\frac{7}{8}}$$

$$\frac{3}{8} = \frac{3}{8}$$

$$4) \frac{7}{12} + \frac{1 \times 2}{6 \times 2} = \frac{2}{12}$$

$$\frac{7}{12} + \frac{2}{12} = \frac{9 \div 3}{12 \div 3} = \boxed{\frac{3}{4}}$$

$$5) 1\frac{1}{6} + 3\frac{4}{6} =$$

$$\begin{array}{r} 1\frac{1}{6} \quad \frac{7}{6} \\ + 3\frac{4}{6} \quad \frac{22}{6} \\ \hline \boxed{4\frac{5}{6}} = \boxed{\frac{29}{6}} \end{array}$$

$$6) \frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$

$$7) \frac{5}{6} - \frac{5}{8} =$$

$$\frac{2 \mid 6 \quad 8}{\times 3 \times 4} = 24$$

$$\begin{array}{r} 4\frac{7}{6} \\ 4 + 1\frac{1}{6} \\ 5\frac{1}{6} \end{array}$$

$$\begin{array}{r} \frac{5 \times 4}{6 \times 4} \frac{20}{24} \quad \frac{20}{24} \\ \frac{5 \times 3}{8 \times 3} \frac{15}{24} \quad - \frac{15}{24} \\ \hline \boxed{\frac{5}{24}} \end{array}$$

$$8) \frac{1}{3} - \frac{2}{15} =$$

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

$$\frac{2}{15} = \frac{2}{15}$$

$$= \frac{3 \div 3}{15 \div 3} = \boxed{\frac{1}{5}}$$

$$9) 3\frac{4}{7} - 2\frac{1}{7}$$

$$\begin{array}{r} 3\frac{4}{7} \\ - 2\frac{1}{7} \\ \hline 1\frac{3}{7} \end{array}$$

$$\begin{array}{r} 2 \\ - 0\frac{2}{7} + \frac{7}{7} \frac{9}{7} \\ \hline 1\frac{3}{7} \end{array}$$

$$10) 3 - \frac{2}{3} =$$

$$\begin{array}{r} 2 \\ - 0\frac{2}{3} \\ \hline 2\frac{1}{3} \end{array}$$

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

$$\frac{3 \times 3}{1 \times 3} \frac{9}{3} - \frac{2}{3} = \boxed{\frac{7}{3} = 2\frac{1}{3}}$$