Worksheet II

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

Observe the above ratios

Find the following ratios in simplest form.

1) $\frac{2+3}{4+6}$

2) $\frac{2+3+4}{4+6+8}$

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

From above worksheet and conclusions teacher explains the theorem on equal ratios.

If $\frac{a}{b} = \frac{c}{d}$ $\boldsymbol{then}$ $\frac{a}{b} = \frac{c}{d} = \frac{a+c}{b+d}$ **. . . . . this is the theorem of equal ratios**

Similarly, If $\frac{a}{b} = \frac{c}{d} = \frac{e}{f}$ $\boldsymbol{then}$ $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{a+c+e}{b+d+f}$

Worksheet III

Make several ratios equal to $\frac{6}{8}$

$\frac{6}{8}$	$\frac{\ldots\ldots}{\ldots\ldots}$	$\frac{\ldots\ldots}{\ldots\ldots}$	$\frac{\ldots\ldots}{\ldots\ldots}$	$\frac{\ldots\ldots}{\ldots\ldots}$	$\frac{\ldots\ldots}{\ldots\ldots}$	$\frac{\ldots\ldots}{\ldots\ldots}$

This can be generalized as,

If $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} =$ ..., and if l, m ,n , . . . are non zero numbers

Such that lb+md+nf+ . . . $\neq 0$

Then each ratio = $\frac{la+mc+ne+\ldots}{lb+md+nf+\cdots}$