Provincial Department Of Education - Sabaragamuwa WEEKLY SCHOOL

Weekly School Department of of Education, Sabaragamuwa iwa Province/ Weekly School eekly School Department of

Subject: Science

of Education, Sabaragamuwa Province/Weekly School Department of Education, Saba aProvince/WeeklySchoolDepartment of Education,Saba School Department of Education, Sabaragamuwa Prov

Week: 4th of 2nd Term

Grade 7

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Unit 10 - Fractions

✓ Subtraction of fractions

Example 01:
$$\frac{5}{7} - \frac{2}{7}$$

$$= \frac{5-2}{7}$$

$$= \frac{3}{7}$$

Ex 02:
$$\frac{5}{6} - \frac{1}{3}$$

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

$$= \frac{5}{6} - \frac{2}{6}$$

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

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

Ex 03:
$$\frac{7}{8} - \frac{2}{3}$$

$$= \frac{7 \times 3}{8 \times 3} - \frac{2 \times 8}{3 \times 8}$$

$$= \frac{21}{24} - \frac{16}{24}$$

$$= \frac{21 - 16}{24}$$

$$= \frac{5}{24}$$

✓ Subtracting mixed numbers:

Example : $3\frac{3}{5} - 2\frac{1}{5}$

Method I = (3-2) +
$$(\frac{3}{5} - \frac{1}{5})$$

$$= 1 + (\frac{3-1}{5})$$

$$= 1 + \frac{2}{5}$$

$$= 1\frac{2}{5}$$

Method II 3
$$\frac{3}{5}$$
 - 2 $\frac{1}{5}$

$$= \frac{18}{5} - \frac{11}{5}$$

$$= \frac{7}{5}$$

$$= 1\frac{2}{5}$$

Example 02 : $4\frac{3}{7} - 2\frac{1}{2}$

Converting mixed numbers in to improper fractions

Convert to same denominators by equivalent fractions

Subtraction numerators with same denominators

Converting improper fraction as mixed number

 $=\frac{27}{14}$ $=1\frac{13}{14}$

Exercises

Evaluate the following

(i)
$$\frac{3}{4} - \frac{1}{4}$$
 (ii) $\frac{7}{8} - \frac{2}{8}$

(ii)
$$\frac{7}{8} - \frac{2}{8}$$

(iii)
$$\frac{11}{13} - \frac{5}{13}$$
 (iv) $\frac{3}{4} - \frac{2}{3}$

(iv)
$$\frac{3}{4} - \frac{2}{3}$$

(v)
$$\frac{17}{15} - \frac{5}{6}$$

(vi)
$$\frac{5}{7} - \frac{2}{5}$$

(vii)
$$3\frac{2}{7} - 2\frac{1}{7}$$

(Viii)
$$4\frac{5}{8} - \frac{3}{4}$$

(ix)
$$5\frac{1}{4} - 2\frac{3}{5}$$
 (x) $3\frac{1}{4} - 1\frac{5}{6}$ (xi) $5\frac{1}{2} - 3\frac{3}{4}$ (xii) $2\frac{5}{8} - \frac{3}{4}$

(x)
$$3\frac{1}{4} - 1\frac{5}{6}$$

(xi)
$$5\frac{1}{2} - 3\frac{3}{4}$$

(xii)
$$2\frac{5}{8} - \frac{3}{4}$$

Mixed Exercises:

01. **Evaluate the following**

i
$$\frac{3}{7} + \frac{2}{7}$$

ii
$$\frac{1}{8} + \frac{3}{8}$$

iii
$$\frac{1}{2} + \frac{1}{4}$$

i
$$\frac{3}{7} + \frac{2}{7}$$
 ii $\frac{1}{8} + \frac{5}{8}$ iii $\frac{1}{2} + \frac{1}{4}$ iv $\frac{7}{15} + \frac{2}{5}$

$$v = \frac{3}{8} + \frac{1}{6}$$

$$vi$$
 $\frac{1}{4} + \frac{1}{2}$

vii
$$\frac{2}{3} + \frac{1}{4} + \frac{1}{4}$$

v
$$\frac{3}{8} + \frac{1}{6}$$
 vi $\frac{1}{4} + \frac{1}{6}$ vii $\frac{2}{3} + \frac{1}{4} + \frac{1}{6}$ viii $\frac{5}{12} + \frac{3}{8} + \frac{1}{6}$

02. **Evaluate the following**

i
$$1\frac{2}{3} + 2\frac{1}{5}$$

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

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

i
$$l\frac{2}{3} + 2\frac{1}{5}$$
 ii $2\frac{1}{4} + 3\frac{1}{2}$ iii $l\frac{3}{4} + l\frac{5}{6}$ iv $2\frac{2}{3} + 3\frac{1}{4}$

$$v 3\frac{5}{6} + 1\frac{3}{8}$$

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

v
$$3\frac{5}{6} + 1\frac{3}{8}$$
 vi $2\frac{4}{9} + 1\frac{5}{6} + \frac{2}{3}$ vii $1\frac{3}{4} + 3\frac{1}{2} + 1\frac{2}{3}$ viii $3\frac{2}{5} + 1\frac{7}{12}$

$$3\frac{2}{5} + 1\frac{7}{12}$$

03. **Evaluate the following**

i
$$\frac{3}{5} - \frac{1}{5}$$
 ii $\frac{4}{7} - \frac{2}{7}$ iii $\frac{3}{5} - \frac{1}{10}$ iv $\frac{5}{8} - \frac{1}{2}$

ii
$$\frac{4}{7} - \frac{2}{7}$$

iii
$$\frac{3}{5} - \frac{1}{10}$$

iv
$$\frac{5}{8} - \frac{1}{2}$$

$$v = \frac{3}{5} - \frac{1}{2}$$

vi
$$\frac{3}{4} - \frac{5}{12}$$

vii
$$\frac{5}{6} - \frac{3}{8}$$

$$v = \frac{3}{5} - \frac{1}{2}$$
 $vi = \frac{3}{4} - \frac{5}{12}$ $vii = \frac{5}{6} - \frac{3}{8}$ $viii = \frac{11}{12} - \frac{5}{8}$

04. **Evaluate the following**

i
$$2\frac{2}{3} - 1\frac{1}{6}$$

ii
$$3\frac{2}{15} - 1\frac{4}{5}$$
 iii $4\frac{3}{5} - 1\frac{1}{2}$

iii
$$4\frac{3}{5}$$

iv
$$3\frac{2}{5} - 1\frac{1}{4}$$

v
$$3\frac{5}{8} - 2\frac{1}{6}$$
 vi $5\frac{1}{6} - 3\frac{5}{9}$

vi
$$5\frac{1}{6} - 3$$

✓ Do the exercises of the text book 10.5 and 10.6