



Provincial Department Of Education – Sabaragamuwa
WEEKLY SCHOOL

Subject : Science

Week : 1st of 2nd Term

Grade 7

Prepared by- A.N.N.Chandramali Abeyesiri , R/Bal/Udagama M.V.

Unit 10 – Fractions

- ✓ Unit- fractions - Numerator equal to 1 ($\frac{1}{3}, \frac{3}{5}, \frac{5}{5}$)
- ✓ Proper fractions - The numerator is always smaller than the denominator. ($\frac{1}{2}, \frac{1}{3}, \frac{1}{12}$, etc)
- ✓ Mixed fractions - The sum of a whole number and a proper fraction. ($2\frac{1}{3}, 4\frac{2}{7}, 11\frac{5}{8}$, etc)
- ✓ Improper fractions - If the numerator of a fraction is greater or equal to the denominator.

$$\frac{1}{7} \quad \frac{3}{8} \quad \frac{7}{9} \quad \frac{23}{12} \quad \frac{1}{11}$$

$$3\frac{1}{2} \quad \frac{8}{5} \quad \frac{2}{3} \quad 5\frac{2}{3} \quad \frac{5}{5}$$

Of the fractions given above, choose and write down the following fractions.

- I. Unit fractions
- II. Proper fractions
- III. Mixed numbers
- IV. Improper fractions

✓ Representing a mixed number as an improper fraction

Let us write the mixed number $1\frac{3}{4}$ as an improper fraction.

$1\frac{3}{4} \rightarrow 1 + \frac{3}{4}$
 Whole number proper fraction

$\frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4}$ $\frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4}$

There are Seven $\frac{1}{4}$ s,

Accordingly $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{7}{4}$ there for $1\frac{3}{4} = \frac{7}{4}$

✓ $1\frac{3}{4}$ can be represented as following.

$1\frac{3}{4}$ $1 + \frac{3}{4}$ $\frac{4}{4} + \frac{3}{4} = \frac{7}{4}$	OR	$1\frac{3}{4}$ $= \frac{4 \times 1 + 3}{4}$ $= \frac{4 + 3}{4} = \frac{7}{4}$
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Write the mixed number $3\frac{2}{5}$ as an improper fraction

$3\frac{2}{5}$ $= 3 + \frac{2}{5}$ $= 1 + 1 + 1 + \frac{2}{5}$ $= \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{2}{5}$ $= \frac{17}{5}$	$3\frac{2}{5}$ $= \frac{5 \times 3 + 2}{5}$ $= \frac{15 + 2}{5}$ $= \frac{17}{5}$
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Exercise : Express each of the following mixed numbers as an improper fraction

i) $3\frac{1}{2}$

ii) $2\frac{2}{7}$

iii) $3\frac{1}{5}$

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

v) $2\frac{5}{13}$

✓ **Expressing an improper fraction as a mixed number**

Let us express $\frac{7}{3}$ as a mixed number.

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

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

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

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

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

Or $\frac{7}{3}$ Let's divide The Numerator by Its Denominator

$$= \text{Quotient} + \frac{\text{Remainder}}{\text{Denominator}}$$

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

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

3	↑	7	←	2	←	Quotient
		6				
		1				←
						Remainder

Exercise : Express each of the following improper fractions as a mixed number.

i) $\frac{12}{5}$

ii) $\frac{14}{3}$

iii) $\frac{9}{2}$

iv) $\frac{11}{4}$

v) $\frac{47}{11}$

- ✓ Do the revision exercises of the mathematics text book.
- ✓ Do the exercise 10.1 of the grade 7 mathematic text book.