



Provincial Department Of Education – Sabaragamuwa
WEEKLY SCHOOL

Subject : Science

Week : 2nd of 2nd Term

Grade 7

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Unit 10 – Fractions

- Comparison of fractions
 - Comparison of fractions with some numerators

The fraction having equal numerators, the fraction with the smaller denominator is greater than the other fraction.

Example:

Accordingly, among two fractions of $\frac{5}{8}$ and $\frac{5}{7}$ the smaller denominator is 7,

$$\therefore \frac{5}{8} > \frac{5}{7}$$

Among two fractions of $\frac{8}{11}$ and $\frac{8}{15}$ the smaller denominator is 11,

$$\therefore \frac{8}{11} > \frac{8}{15}$$

Further when $\frac{8}{11}, \frac{8}{17}, \frac{8}{15}$ are arranged in ascending order we obtain $\frac{8}{17}, \frac{8}{15}, \frac{8}{11}$.

- Comparison of fractions having the same denominators

The fractions having the equal denominators the fraction with the larger numerator is greater than the other fraction.

Example:

Accordingly, $\frac{3}{4}$ and $\frac{5}{8}$

- It is convenient to take the least common multiple (LCM) of 8 and 4 in this situation.

L.C.M. of 4 and 8 = $2 \times 2 \times 2 = 8$

- Then take the equivalent fraction for $\frac{3}{4}$

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

$$\text{Then } \frac{6}{8} > \frac{5}{8}$$

$$\text{Therefore } \frac{3}{4} > \frac{5}{8}$$

Example 2: $\frac{5}{6}, \frac{2}{3}$

LCM is 6

Accordingly $\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$

$$\frac{5}{6} > \frac{4}{6}$$

$$\frac{5}{6} > \frac{2}{3}$$

example 3: $\frac{5}{8}, \frac{7}{12}$

LCM is 24

$\frac{5 \times 3}{8 \times 3} = \frac{15}{24} = \frac{7 \times 2}{12 \times 2} = \frac{14}{24}$

$$\frac{15}{24} > \frac{14}{24}$$

$$\frac{5}{8} > \frac{7}{12}$$

✓ **Comparison of mixed numbers**

Mixed numbers can be compared, by first converting them into equivalent improper fractions

Example 1: $2\frac{2}{3}$ and $2\frac{1}{4}$

$$2\frac{2}{3} = \frac{8}{3}, 2\frac{1}{4} = \frac{9}{4}$$

$$\frac{8 \times 4}{3 \times 4} = \frac{32}{12}, \frac{9 \times 3}{4 \times 3} = \frac{27}{12}$$

$$\frac{32}{12} > \frac{27}{12}$$

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

Example 2:

$$3\frac{2}{5} \text{ and } 3\frac{1}{3}$$

$$\frac{17}{5} \quad \frac{10}{3}$$

$$\frac{17 \times 3}{5 \times 3} \quad \frac{10 \times 5}{3 \times 5}$$

$$\frac{51}{15} > \frac{50}{15}$$

$$3\frac{2}{5} > 3\frac{1}{3}$$

Exercises

(01) For each of the following parts, select and write down the larger fraction.

i) $\frac{3}{8}, \frac{5}{8}$

ii) $\frac{5}{6}, \frac{2}{3}$

iii) $\frac{5}{6}, \frac{4}{5}$

iv) $\frac{14}{9}, \frac{5}{3}$

v) $\frac{3}{4}, \frac{2}{3}$

vi) $\frac{3}{11}, \frac{3}{12}$

(02) Fill in the blanks with the suitable symbol from <, > and =

i) $\frac{7}{5} \dots \frac{7}{13}$

ii) $\frac{3}{17} \dots \frac{9}{17}$

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

iv) $\frac{4}{6} \dots \frac{2}{3}$

v) $2\frac{3}{4} \dots 2\frac{2}{3}$

vi) $3\frac{3}{5}, 3\frac{2}{3}$

✓ **Do the exercise 10.2 of the grade 7 mathematic text book.**