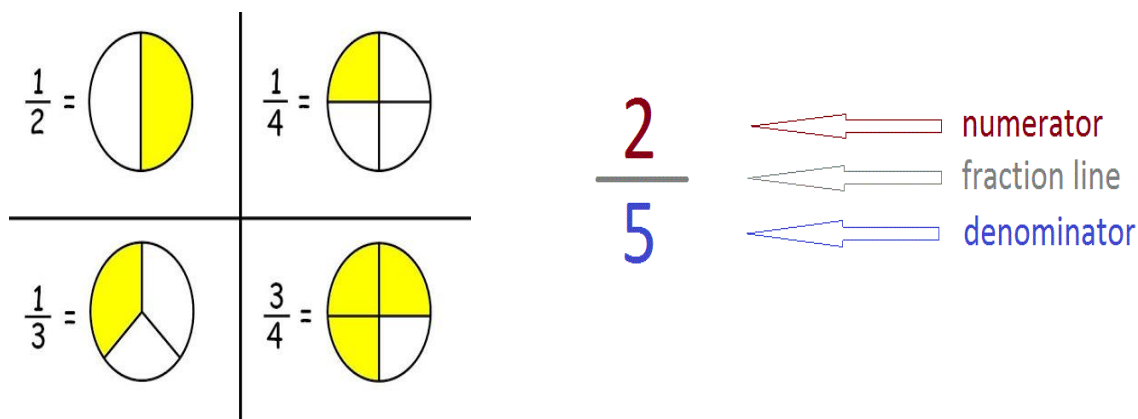


CLASS – 5
SUBJECT: MATHEMATICS
TOPIC : FRACTIONS
WORKSHEET



SYNOPSIS:

- A fraction is a part of a whole or a collection.
- A fraction has two parts. The number on the top of the line or the fraction bar is the numerator. The number below the fraction bar is called the denominator.
- Proper fractions are less than 1. The numerator is always less than the denominator.
For example, $\frac{3}{4}$ is a proper fraction.
- Unit fractions are proper fractions with numerator 1. For example, $\frac{1}{5}$ is a unit fraction.
- Improper fractions have the numerator always greater than the denominator. For example, $\frac{8}{3}$ is an improper fraction.
- Like fractions have the same denominator. For example, $\frac{2}{5}, \frac{3}{5}$ are like fractions.
- Unlike fractions have different denominators. For example, $\frac{1}{4}, \frac{2}{7}$ are unlike fractions.
- Equivalent fractions stand for the same fraction. They can be written both in higher and lower terms.
- A fraction is in its lowest terms when the numerator and the denominator have no common factor except 1.
- Both like and unlike fractions can be compared. For unlike fractions, it is important to first convert them into like fractions and then compare the numerators.



EXAMPLES:

A. Writing equivalent fractions:

1. Find out the equivalent fraction of $\frac{2}{4}$ in higher terms.

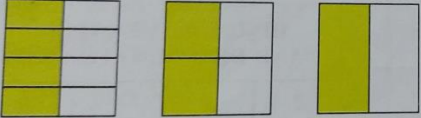
$$\frac{2}{4} \xrightarrow[\times 2]{=} \frac{4}{8}$$

2. Find out the equivalent fraction of $\frac{12}{8}$ in lower terms.

$$\frac{12}{8} \xrightarrow[\div 2]{=} \frac{6}{4}$$

B. Reducing a fraction to its lowest terms:

1. Reduce $\frac{4}{8}$ to the lowest terms.



Here, the fractions $\frac{4}{8}$, $\frac{2}{4}$ and $\frac{1}{2}$ are all equivalent fractions but $\frac{1}{2}$ is in its lowest terms.

$$\frac{4 \div 2}{8 \div 2} = \frac{2 \div 2}{4 \div 2} = \frac{1}{2}$$

C. Comparing like fractions:

It's easy to order fractions with the same denominator!

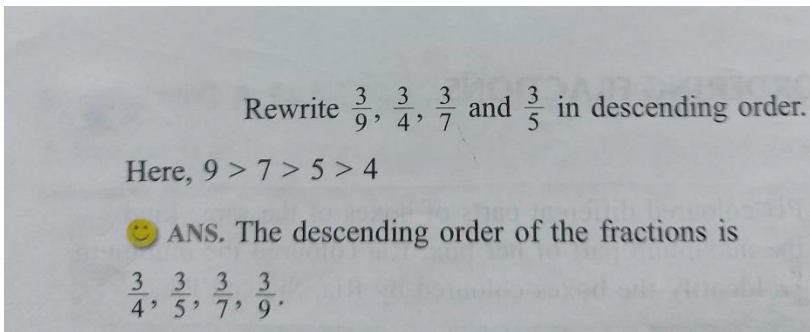
Order the fractions from GREATEST to LEAST

$\frac{3}{6}$ $\frac{5}{6}$ $\frac{4}{6}$ $\frac{2}{6}$

Order using the numerators!

$\frac{5}{6}$ $\frac{4}{6}$ $\frac{3}{6}$ $\frac{2}{6}$

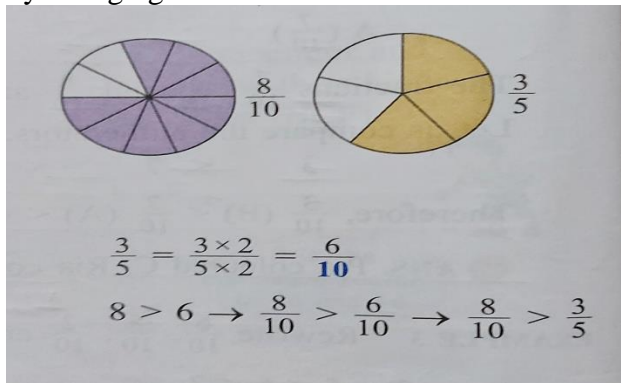
D. Comparing unlike fractions (with the same numerator):



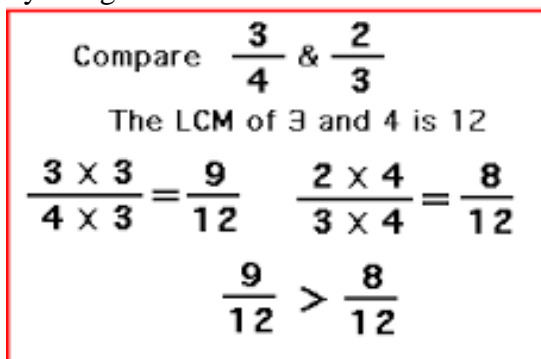
These are unlike fractions with the same numerator, so the greater the denominator, the smaller the fraction.

E. Comparing unlike fractions (with different numerator) :

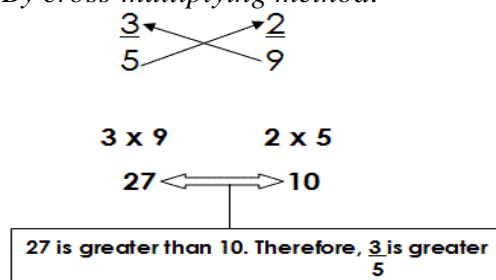
1. By changing fractions into like fractions:



2. By using the LCM method:



3. By cross-multiplying method:



Students refer to the following videos:

1. https://www.youtube.com/watch?v=N3_8MmailE
2. <https://www.youtube.com/watch?v=AQZE-xEeeg>
3. <https://www.youtube.com/watch?v=4xFwkDSMVw4>
4. <https://www.youtube.com/watch?v=rt5cvNDj6lo>

WORKSHEET:

1. Find out the equivalent fractions of $\frac{2}{6}$, $\frac{3}{4}$, and $\frac{1}{3}$
2. Reduce to lowest terms by dividing the numerator and denominator by their common factors.

a) $\frac{3}{9}$ b) $\frac{6}{18}$ c) $\frac{12}{18}$ d) $\frac{6}{12}$ e) $\frac{18}{20}$

3. Rewrite the following fractions in ascending order:

a) $\frac{2}{5}, \frac{5}{5}, \frac{1}{5}, \frac{4}{5}$ b) $\frac{4}{8}, \frac{4}{1}, \frac{4}{3}, \frac{4}{5}$

4. Rewrite the following fractions in descending order:

a) $\frac{2}{10}, \frac{9}{10}, \frac{3}{10}, \frac{7}{10}$ b) $\frac{2}{3}, \frac{1}{5}, \frac{3}{4}, \frac{5}{6}$

5. Complete the following exercises from the chapter:

- a) Exercise 4.1 D (1-5) on Page no. 61.
- b) Exercise 4.2 B (1-5) on Page no. 62.
- c) Exercise 4.3 A (1-4) on Page no. 66.
- d) Exercise 4.3 B (1-4) on Page no. 66.

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