Sub:Maths class-7 Topic-Addition and Subtraction of fractions

Do all questions of Ex-2.2 ,one of each type is done for you.

EXERCISE 2.2

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Add :

(i) $\frac{5}{9}+\frac{7}{9}$ (ii) $\frac{3}{5}+\frac{7}{4}$ (iii) $\frac{3}{4}+1$ (iv) $\frac{4}{7}+\frac{11}{14}$

2. Find the difference :

(i) $\frac{5}{7}-\frac{3}{7}$ (ii) $\frac{11}{16}-\frac{7}{12}$ (iii) $\frac{7}{9}-\frac{2}{3}$ (iv) $\frac{15}{19}-\frac{12}{57}$

3. Find the sum :

(i) $3\frac{1}{9}+1\frac{5}{6}$ (ii) $3\frac{1}{3}+5\frac{2}{7}$ (iii) $12\frac{3}{5}+1\frac{3}{5}$ (iv) $10\frac{1}{9}+6\frac{5}{12}$

Ex-2.2

4. Simplify :

   (*i*) $3 - \frac{7}{6} + \frac{11}{12}$ (*ii*) $4\frac{6}{7} - 2\frac{2}{3} - \frac{20}{21}$ (*iii*) $5\frac{1}{6} - 3\frac{1}{4} + 2\frac{1}{3}$ (*iv*) $10\frac{3}{5} + 2\frac{5}{6} - 5\frac{3}{5}$

5. What should be added to $\frac{11}{48}$ to get $\frac{13}{16}$?

6. Which is greater : $\frac{2}{3}$ or $\frac{7}{9}$? By how much?

7. What should be added to $3\frac{1}{2}$ to get $8\frac{1}{4}$?

8. A rectangular field is $15\frac{2}{3}$ m long and $12\frac{4}{5}$ m wide. Find its perimeter.

9. The sum of two numbers is 7. If one of the numbers is $\frac{11}{7}$, find the other.

10. A piece of wire is of length $8\frac{1}{4}$ m. It is cut into two pieces. The length of one piece is $4\frac{3}{5}$ m. What is the length of the other piece?

11. The sides of a triangle are $\frac{7}{2}$ cm, $\frac{11}{4}$ cm and $\frac{16}{5}$ cm. Find its perimeter.

CLASS-7

Exercise – 2.2.

ADDITION AND SUBTRACTION OF FRACTIONS

1. Add :

(i) $\frac{5}{9} + \frac{7}{9} = \frac{5+7}{9}$ (like fractions Add Numerator and retain common denominator.)

$= \frac{12}{9}$

$= \frac{4}{3} = 1\frac{1}{3}$ Ans.

2. Find the difference :

(i) $\frac{5}{7} - \frac{3}{7} = \frac{5-3}{7} = \frac{2}{7}$ Ans

(ii) $\frac{11}{16} - \frac{7}{12}$ L.C.M. of 16 and 12

$= \frac{33 - 7\times4}{48}$

$= \frac{33-28}{48}$

$= \frac{5}{48}$

2	16, 12
2	8, 6
2	4, 3
2	2, 3
3	1, 3
	1, 1

L.C.M = 48

3. Find the Sum :

$3\frac{1}{9} + 1\frac{5}{6} = \frac{28}{9} + \frac{11}{6}$

$= \frac{28}{9} + \frac{11}{6}$

$= \frac{56+33}{18} = \frac{89}{18} = 8\frac{1}{18}$ Ans.

L.C.M of 9, 6 = 3×3×2 = 18

3	9, 6
3	3, 2
2	1, 2
	1, 1

Ex- 2.2
FRACTIONS)-

4. Simplify :-

(i) $\frac{3}{1} - \frac{7}{6} + \frac{11}{12}$

$= \frac{36 - 14 + 11}{12}$

$= \frac{22 + 11}{12}$

$= \frac{33}{12} = 2\frac{9}{12} = 2\frac{3}{4}$ Ans.

L.C.M of 1, 6, 12

2	1, 6, 12
3	1, 3, 6
2	1, 1, 2
	1, 1, 1

L.C.M = 12

Ans:8 Length of rectangular field is $15\frac{2}{3}$ m.
Breadth of rectangular field is $= 12\frac{4}{5}$ m wide.

perimeter of field = 2 [Length + Breadth]

$= 2\left[15\frac{2}{3} + 12\frac{4}{5}\right]$ m

$= 2\left[\frac{47}{3} + \frac{64}{5}\right]$

$= 2 \times \left[\frac{47 \times 5 + 64 \times 3}{15}\right]$

$= 2 \times \left[\frac{235 + 192}{15}\right]$

$= \frac{2 \times 427}{15}$

$= \frac{854}{15} = 56\frac{14}{15}$ m Ans.

L.C.M of 3, 5 = 15

3	3, 5
5	1, 5
	1, 1

Teacher's Signature