EX-9(B)

1 Add

$\frac{5}{6} + \frac{7}{12}$

$= 5 \times 2 + 7 \times 1 = \frac{10+7}{12} \quad \frac{17}{12}$

OR

LCM = 12

$\frac{5}{6} + \frac{7}{12}$

$\frac{5}{6} = \frac{10}{12} \times 2$

$\frac{7}{12} = \frac{7}{12}$

$\frac{10}{12} + \frac{7}{12} = \frac{17}{12}$

$\frac{4}{5} \quad \frac{3}{10} \quad \frac{1}{2}$

2	5, 10, 2
5	5, 5, 1
	1, 1, 1

LCM = 10

$\left(\frac{4}{5} \times \frac{2}{1}\right) + \left(\frac{3}{10} \times \frac{1}{1}\right) + \left(\frac{1}{2} \times \frac{5}{5}\right)$

$\frac{8}{10}$

$\frac{8+3+5}{10} = \frac{16}{10} = \frac{8}{5}$

$1\frac{3}{5}$

c $\frac{5}{6} + \frac{7}{12} + \frac{5}{24}$

3	6, 12, 24
2	2, 4, 8
2	1, 2, 4
2	1, 1, 2
	1, 1, 1

LCM = 24

$\left(\frac{5}{6} \times \frac{4}{4}\right) + \left(\frac{7}{12} \times \frac{2}{2}\right) + \left(\frac{5}{24} \times \frac{1}{1}\right)$

$\frac{20}{24} + \frac{14+5}{24} = \frac{39}{24} = \frac{13}{8}$

$1\frac{5}{8}$

d) $\frac{2}{7} + \frac{3}{5} + \frac{1}{2}$

7, 5, 2

$\left(\frac{2}{7} \times \frac{10}{10}\right) + \left(\frac{3}{5} \times \frac{14}{14}\right) +$ LCM = 70

$\left(\frac{1}{2} \times \frac{35}{35}\right)$

$\frac{20 + 42 + 35}{70} = \frac{97}{70} = 1\frac{27}{70}$

e) $\frac{5}{16} + \frac{7}{10} + \frac{2}{5}$

2	16, 10, 5
2	8, 5, 5
4	4, 5, 5
5	1, 5, 5
	1, 1, 1

$\left(\frac{5}{16} \times \frac{5}{5}\right) + \left(\frac{7}{10} \times \frac{8}{8}\right) +$

$\left(\frac{2}{5} \times \frac{16}{16}\right)$

LCM = 80

$\frac{25 + 56 + 32}{80} = \frac{113}{80} = 1\frac{33}{80}$

H.W.- 3·9·21 - (ch-9)

Exercise 9 (B)

1. Add

f) $\frac{16}{25} + \frac{9}{10} + \frac{3}{8}$

2	25, 10, 8
2	25, 5, 4
2	25, 5, 2
5	25, 5, 1
5	5, 1, 1
	1, 1, 1

LCM = 200

$\left(\frac{16}{25} \times \frac{8}{8} = \frac{128}{200}\right) + \left(\frac{9}{10} \times \frac{20}{20} = \frac{180}{200}\right) +$

$\left(\frac{3}{8} \times \frac{25}{25} = \frac{75}{200}\right)$

$$\frac{128 + 180 + 75}{200} = \frac{383}{200}$$

$$1\frac{183}{200} \quad \text{Ans}$$

g) $1\frac{1}{4} + 3\frac{3}{8} = \frac{(4\times1)+1}{4} + \frac{(3\times8)+3}{8}$

$= \frac{5}{4} + \frac{27}{8}$ so Lcm of

2	4, 8
2	2, 4
2	1, 2
	1, 1

Lcm of 4 and 8 = 8

$\left(\frac{5}{4}\times\frac{2}{2} = \frac{10}{8}\right) + \left(\frac{27}{8}\times\frac{1}{1} = \frac{27}{8}\right)$

ADD $\frac{10+27}{8} = \frac{37}{8}$ or $4\frac{5}{8}$

h $3\frac{1}{3} + 7\frac{5}{6} + 5\frac{1}{2} = \frac{10}{3} + \frac{47}{6} + \frac{11}{2}$

So Lcm of 3, 6, 2 = 6

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

$\left(\frac{10}{3}\times\frac{2}{2}\right) + \left(\frac{47}{6}\times\frac{1}{1}\right) + \left(\frac{11}{2}\times\frac{3}{3}\right)$

$\frac{20+47+33}{6} = \frac{100^{50}}{6_3} = \frac{50}{3}$

$16\frac{2}{3}$

(1) $6\frac{5}{14} + 20 + 7\frac{3}{7} + 8\frac{7}{12}$

$= \frac{89}{14} + \frac{20}{1} + \frac{52}{7} + \frac{103}{12}$

So LCM of $14, 7, 12 = 84$

7	14, 7, 12
2	2 , 1 , 12
2	1 , 1 , 6
3	1 , 1 , 3
	1 , 1 , 1

$\left(\frac{89}{14} \times \frac{6}{6}\right) + 20 + \left(\frac{52}{7} \times \frac{12}{12}\right) + \left(\frac{103}{12} \times \frac{7}{7}\right)$

$\frac{534 + 20 + 624 + 721}{84} = \frac{1899}{84}$ or

$42\frac{31}{84}$

$\left(\frac{89}{14} \times \frac{6}{6}\right) + \left(\frac{20}{1} \times \frac{84}{84}\right) + \left(\frac{52}{7} \times \frac{12}{12}\right) +$

$\left(\frac{103}{12} \times \frac{7}{7}\right)$

$\frac{534 + 1680 + 624 + 721}{84} = \frac{3559}{84}$

$= 42\frac{31}{84}$

Exercise 9 (B)

2 (c) $\frac{8}{15} - \frac{4}{9}$ LCM of 15 & 9 = 45

$\left(\frac{8}{15} \times \frac{3}{3}\right) - \left(\frac{4}{9} \times \frac{5}{5}\right) = \frac{24}{45} - \frac{20}{45}$

$\frac{24-20}{45} = \frac{4}{45}$ Ans

d) $\frac{15}{19} - \frac{9}{13}$ LCM of 19 & 13 = 247

$\left(\frac{15}{19} \times \frac{13}{13}\right) - \left(\frac{9}{13} \times \frac{19}{19}\right) =$

$= \frac{195 - 171}{247} = \frac{24}{247}$

: Subtract

B $\frac{8}{15} - \frac{11}{13} - \frac{5}{7}$

13, 7.

LCM = 91

$\left(\frac{11}{13} \times \frac{7}{7}\right) - \left(\frac{5}{7} \times \frac{13}{13}\right)$

$\frac{77 - 65}{91} = \frac{12}{91}$

c) $\frac{13}{17} - \frac{7}{10}$

$\left(\frac{13}{17} \times \frac{10}{10}\right) - \left(\frac{7}{10} \times \frac{17}{17}\right)$

3	17, 10
5	17, 5
17	17, 1
	1, 1

LCM = 170

$\frac{130 - 119}{170}$

$\frac{11}{170}$

d) $\frac{15}{19} - \frac{9}{13}$

LCM of 19 & 13 = 247

$\left(\frac{15}{19} \times \frac{13}{13}\right) - \left(\frac{9}{13} \times \frac{19}{19}\right) =$

$= \frac{195 - 171}{247} = \frac{24}{247}$

e) $\frac{7}{9} - \frac{4}{15}$

LCM of 9 & 15 = 45

$\left(\frac{7}{9} \times \frac{5}{5}\right) - \left(\frac{4}{15} \times \frac{3}{3}\right) =$

$\frac{35 - 12}{45} = \frac{23}{45}$

f) $\frac{16}{27} - \frac{7}{18}$ LCM of 27 & 18 = 54

$\left(\frac{16}{27} \times \frac{3}{2}\right) - \left(\frac{7}{18} \times \frac{3}{3}\right) =$

$\frac{32 - 21}{54} = \frac{11}{54}$

g) $13\frac{7}{9} - 8\frac{5}{12}$

$\frac{124}{9} - \frac{101}{12}$ SO LCM =

3	9, 12
3	3, 4
2	1, 4
2	1, 3
	1, 1

LCM = 36

$\left(\frac{124}{9} \times \frac{4}{4}\right) - \left(\frac{101}{12} \times \frac{3}{3}\right) =$

$\frac{496 - 303}{36} = \frac{193}{36}$

or $5\frac{13}{36}$

6
36 | 193
180
13

$5\frac{13}{36}$

h) $6\frac{3}{17} - \frac{4}{1}$

$\frac{105}{17} - \frac{4}{1}$ so LCM = 17

$\left(\frac{105}{17} \times \frac{1}{1}\right) - \left(\frac{4}{1} \times \frac{17}{17}\right) =$

$\frac{105 - 68}{17} = \frac{37}{17}$

$= \frac{3}{17}$

i) $30\frac{3}{4} - \frac{25}{1}$ so LCM = 4

$\frac{123}{4} - \frac{25}{1}$

$\left(\frac{123}{4} \times \frac{1}{4}\right) - \left(\frac{25}{1} \times \frac{4}{4}\right) =$

$\frac{123 - 100}{4} = \frac{23}{4}$ or $5\frac{3}{4}$

j) $20\frac{1}{12} - \frac{15}{1}$

$\frac{247}{12} - \frac{15}{1}$ so LCM = 12

$\left(\frac{247}{12} \times \frac{1}{1}\right) - \left(\frac{15}{1} \times \frac{12}{12}\right) =$

$\frac{247 - 180}{12} =$ [illegible]

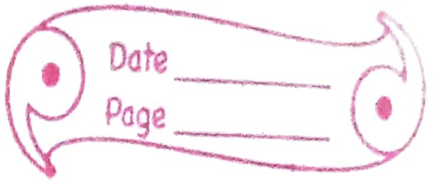
$\frac{67}{12} = 5\frac{7}{12}$

k) $12\frac{7}{8} - 11\frac{1}{2} = \frac{103}{8} - \frac{23}{2}$

LCM of 8 & 2 = 8

$\left(\frac{103}{8} \times \frac{1}{1}\right) - \left(\frac{23}{2} \times \frac{4}{4}\right) =$

$\frac{103 - 92}{8} = \frac{11}{8}$ or $1\frac{3}{8}$



1) $100\frac{1}{4} - \frac{99}{1} = \frac{401}{4} - \frac{99}{1}$

So LCM of 4 & 1 = 4

$$\left(\frac{401}{4} \times \frac{1}{1}\right) - \left(\frac{99}{1} \times \frac{4}{4}\right) =$$

$$\frac{401 - 396}{4} = \frac{5}{4}$$

or $1\frac{1}{4}$