CW
3/9/22
Friday

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

The L.C.M. of 9 and 15 = 9 x 5 x 3 = 135

$\frac{7}{9} \cdot \frac{4}{15} = \frac{105 + 36}{135} = \frac{141}{135} = 1\frac{6}{135}$

f) $\frac{16}{27} - \frac{7}{18}$

The L.C.M. of 27 and 18 = 2 x 3 x 9 = 54

$\frac{16}{27} - \frac{7}{18} = \frac{188 + 288}{54} = \frac{476}{54} =$

$8\frac{44}{54}$

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

$13\frac{7}{9} - 8\frac{5}{12} = \frac{117}{9} - \frac{96}{12} =$

the L.C.M. of 9 and 12 = 3 × 3 × 4 = 36

$\frac{117}{9} \quad \frac{96}{12} = \frac{1404 - 864}{36} = \frac{2268}{36}$

$= 62\frac{36}{36}$

h) $6\frac{3}{27} - 4$

$6\frac{3}{27} - 4 = \frac{105}{27} - \frac{4}{1}$

~~The L.C.M. of 27~~

the L.C.M. of $\frac{105}{27}$ and $\frac{4}{1}$ = ~~17~~

= 17

$\frac{105}{17} = \frac{4}{1} = \frac{105+68}{17} = \frac{173}{17} =$

$10\frac{3}{17}$

i) $30\frac{3}{4} - 25$

$30\frac{3}{4} - 25 = \frac{123}{4} - \frac{25}{1}$

The L.C.M of 4 and 1 is 4

$\frac{123}{4} - \frac{25}{1} = \frac{123+100}{4} = \frac{223}{4}$

$= 55\frac{3}{4}$

j) $20\frac{7}{12} - 15$

$20\frac{7}{12} - 15 = \frac{247}{12} - \frac{15}{1}$

The L.C.M of 12 and 1 is 12

$\frac{247}{12} \cdot \frac{15}{1} = \frac{247 * 180}{12}$

$\frac{427}{12} = 35\frac{7}{12}$

K) $12\frac{7}{8} - 11\frac{1}{2}$

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

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

$= \frac{206 - 184}{6} = \frac{22}{6} = 3\frac{4}{6}$

L) $100\frac{1}{4} - 99$

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

The L.C.M. of 4 and 1 = 2x2
= 4

$\frac{401}{4} - \frac{99}{1} = \frac{401-396}{4} = \frac{5}{4}$

$= 1\frac{1}{4}$

3.

d) $\frac{1}{2} + \frac{3}{4} - \frac{5}{8} - \frac{1}{16}$ The L.C.M. of 2, 4, 8, and 16 = 2x2x2x2 = 8

$\frac{1}{2} + \frac{3}{4} + \frac{5}{8} - \frac{1}{16} =$

$= \frac{4+6-8+80}{8} = \frac{78}{8} = 9\frac{6}{8}$

e) $8\frac{3}{4} + 7\frac{1}{2} - 3\frac{1}{4} - 2\frac{1}{2}$

$8\frac{3}{4} + 7\frac{1}{2} - 3\frac{1}{4} - 2\frac{1}{2} = \frac{35}{4} + \frac{15}{2} - \frac{13}{4} - \frac{5}{2}$

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The L.C.M. of 4, 2, 4, 2 is = 2 × 2 × 2 × 2 = 8.

$$\frac{35}{4} + \frac{15}{2} - \frac{13}{4} - \frac{5}{2} = \frac{70 + 60 - 26 - 20}{8} = \frac{104}{8}$$

$$= 12\frac{8}{8}$$

f) $10\frac{5}{6} - 7\frac{2}{3} + 8\frac{1}{3} - 5\frac{1}{2}$

$$10\frac{5}{6} - 7\frac{2}{3} + 8\frac{1}{3} - 5\frac{1}{2} =$$

$$\frac{65}{6} - \frac{23}{3} + \frac{25}{3} - \frac{11}{2}$$

The L.C.M. of 6, 3, 3 and 2 is

3 × 2 = 6

$$\frac{65}{6} - \frac{23}{3} + \frac{25}{3} - \frac{11}{2} = \frac{195 - 138 +}{6}$$

$$\frac{56 - 33}{6} = \frac{79}{6} = 12\frac{3}{6}$$

g) $5\frac{5}{12} - 6 + 8 - 5\frac{3}{5}$

$5\frac{5}{12} - 6\ 78 - 5\frac{3}{5} = \frac{65}{12} - \frac{6}{1} + \frac{8}{1} -$

$\frac{28}{5}$

L.C.M. of 5 12, 1, 1, 5 is

$2 \times 5 \times 6 = 60$

$\frac{65}{12} - \frac{6}{1} + \frac{8}{1} - \frac{28}{5} = \frac{65 - 72 + 288}{60}$

$= \frac{31}{60}$

h) $10\frac{1}{4} + 6\frac{3}{8} - 15 + 1\frac{1}{2}$

$10\frac{1}{4} + 6\frac{3}{8} - 15 + 1\frac{1}{2} = \frac{41}{4} + \frac{51}{8} - \frac{15}{1} + \frac{3}{2}$

The L.C.M. of 2, 4, 8 and 1 is 2×2×2
= 8

$\frac{41}{4} + \frac{51}{8} \frac{-25}{1} + \frac{3}{2} = \frac{328 + 204 - 301}{8}$

$= \frac{505}{6} = 84\frac{1}{6}$

i) $25 - 20\frac{1}{2} + 15\frac{3}{5} - 5$

$25 - 20\frac{1}{2} + 15\frac{3}{5} - 5 = \frac{25}{1} - \frac{41}{2} + \frac{78}{5}$

The L.C.M. of 1, 2, 5, 1 is 2×5
= 10

ii) $\frac{9}{14} - 1\frac{2}{7} + 4\frac{3}{7} - 1\frac{2}{21}$

$$\frac{9}{14} - 1\frac{3}{7} + 4\frac{3}{7} - 1\frac{2}{21} =$$

$$\frac{9}{14} - \frac{9}{7} + \frac{31}{7} - \frac{12}{21}$$

The L.C.M. of 14, 7, 7, 21 =

$2 \times 7 \times 3 = 42$

$$\frac{9}{14} - \frac{9}{7} + \frac{31}{7} - \frac{12}{21} = \frac{63 - 126 + 651 - 84}{42}$$

$$= \frac{1067}{42} = 25\frac{17}{42}$$