

HW
3-9-2021

Exercise 1(B)

2- Subtract

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

$$= \frac{16 \times 2 - 7 \times 3}{54}$$

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

$$\begin{array}{r} 3 \overline{) 27, 18} \\ \underline{3 , 6} \\ 3 , 2 \\ \underline{2 , 2} \\ 1, 1 \end{array}$$

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

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

$$= \frac{124 \times 4 - 101 \times 3}{36}$$

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

$$\begin{array}{r} 3 \overline{) 9, 12} \\ \underline{3 , 4} \\ 4 , 4 \\ \underline{4 , 4} \\ 1 \end{array}$$

$$\text{h)} \quad 6\frac{3}{17} - 4 = \frac{105}{17} - \frac{4}{1}$$

$$= \frac{105 \times 1 - 4 \times 17}{17} \quad \begin{array}{r} 17 \overline{) 17, 1} \\ 1, 1 \end{array}$$

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

$$\text{i)} \quad 30\frac{3}{4} - 25 = 30\frac{3}{4} - \frac{25}{1} = \frac{120 - 21}{4}$$

$$= \frac{120 \times 1 - 21 \times 4}{4} \quad \begin{array}{r} 4 \overline{) 4, 1} \\ 1, 1 \end{array}$$

$$= \frac{120 - 84}{4} = \frac{36}{4}$$

$$\text{j)} \quad 20\frac{7}{12} - 15 = \frac{240}{12} - \frac{15}{1}$$

$$= \frac{240 \times 1 - 15 \times 12}{12} \quad \begin{array}{r} 12 \overline{) 12, 1} \\ 1, 1 \end{array}$$

$$= \frac{240 - 180}{12} = \frac{60}{12}$$

$$k^2 = 12\frac{7}{8} - 11\frac{1}{2} = \frac{83}{8} - \frac{23}{2}$$

$$= \frac{83 \times 1 - 23 \times 4}{8}$$

$$\begin{array}{r} 2 \overline{) 8,2} \\ 4 \overline{) 4,1} \\ \underline{4,1} \\ 0,1 \end{array}$$

$$= \frac{83 - 92}{8} = \frac{11}{8}$$

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

$$= \frac{401 \times 1 + 99 \times 4}{4}$$

$$\begin{array}{r} 4 \overline{) 4,1} \\ \underline{4,1} \\ 0,1 \end{array}$$

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

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$$= \frac{805 - 696}{60} = \frac{109}{60} = 1 \frac{49}{60}$$

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

$$= \frac{41}{4} + \frac{51}{8} - \frac{15}{1}$$

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

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

$$= \frac{82 + 51 + 12 - 120}{8}$$

$$= \frac{25}{8} = 3 \frac{1}{8}$$

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

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

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

$$\underline{\text{L.C.M.} = 10}$$

$$= \frac{25 \times 10 + 78 \times 2 - 41 \times 5 - 5 \times 10}{10}$$

$$= \frac{250 + 156 - 205 - 50}{10}$$

$$= \frac{406 - 255}{10} = \frac{151}{10} = 15 \frac{1}{10}$$

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

$$= \frac{9}{14} + \frac{31}{7} - \frac{9}{7} - \frac{23}{21} \quad \underline{\text{L.C.M.} = 42}$$

$$= \frac{9 \times 3 + 31 \times 6 - 9 \times 6 - 23 \times 2}{42}$$

$$= \frac{27 + 186 - 54 - 46}{42}$$

$$= \frac{213 - 100}{42} = \frac{113}{42} = 2\frac{29}{42}$$