

HW
6/9/2021

EX 9. B

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

$$\begin{array}{l} 2 \quad | \quad 6, 3, 3, 2 \\ 3 \quad | \quad 3, 3, 3, 1 \\ \hline 3, 1, 1, 1 \end{array}$$

LCM = 6

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

$$= \frac{65 \times 1 - 23 \times 2 + 25 \times 2 - 11 \times 3}{6}$$

$$= \frac{65 + 50 - 46 - 33}{6}$$

$$= \frac{35}{6} - \frac{46}{6} - \frac{33}{6} \quad \frac{115 - 46 - 33}{6}$$

$$= \frac{27}{6} = \frac{36}{6}$$

$$= 6$$

(9)

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

$$\frac{2112}{11} - \frac{216}{11} + \frac{33}{11} - \frac{216}{11}$$

$$= \frac{66}{12} - 6 + 8 - \frac{28}{5}$$

$$\frac{5111}{11} - \frac{11}{11} + \frac{11}{11} - \frac{11}{11}$$

LCM = 60

$$= \frac{65 \times 5}{60} - \frac{6 \times 60}{60} + \frac{8 \times 60}{60} - \frac{28 \times 12}{60}$$

$$= \frac{325 + 480 - 360 - 336}{60}$$

$$= \frac{805 - 360 - 336}{60}$$

$$= \frac{109}{60}$$

(10)

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

$$\frac{2148}{12} - \frac{24}{12} + \frac{2111}{12}$$

$$\frac{1111}{11} - \frac{11}{11} + \frac{11}{11}$$

LCM = 8

$$= \frac{41}{4} + \frac{49}{8} - \frac{15}{1} - \frac{3}{2}$$

$$= \frac{40 \times 2 + 49 \times 1 - 15 \times 8 + 3 \times 4}{8}$$

$$= \frac{80 + 49 + 12 - 120}{8}$$

$$= \frac{236 - 120}{8} = \frac{145 - 120}{8}$$

$$= \frac{116}{8} = \frac{25}{8}$$

$$(ii) \quad \frac{25}{1} - \frac{201}{2} + \frac{153}{5} - 5$$

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

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

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

$$= \frac{406 - 255}{10}$$

$$= \frac{151}{10}$$

(i) $\frac{9}{14} - \frac{9}{7} + \frac{31}{7} - \frac{23}{21}$

~~LCM = 42~~
~~7/14, 7, 7, 21~~
~~2 | 2, 11~~
~~3 | 1, 1, 1~~
~~1, 1, 1~~

LCM = 42

~~$= \frac{9}{14} - \frac{9}{7} + \frac{31}{7} - \frac{23}{21}$~~

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

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

~~$= \frac{213 - 54 - 46}{42}$~~

$= \frac{100}{42}$