

$$3-a) \frac{7}{12} + \frac{9}{12} - \frac{5}{12}$$

$$= \frac{7 + 9 - 5}{12} = \frac{11}{12}$$

$$b) \frac{9}{10} - \frac{3}{5} + \frac{7}{8} = \frac{9}{10} + \frac{7}{8} - \frac{3}{5}$$

$$= \frac{9 \times 4 + 7 \times 5 - 3 \times 8}{40} = \frac{36 + 35 - 24}{40} = \frac{71 - 24}{40} = \frac{47}{40}$$

$$\frac{47}{40} = 1 \frac{7}{40}$$

$$c) \frac{5}{12} - \frac{2}{3} - \frac{1}{2} + 7$$

$$= \frac{5}{12} + 7 - \frac{2}{3} - \frac{1}{2} = \frac{5 + 7 \times 12 - 2 \times 4 - 1 \times 6}{12}$$

$$= \frac{5 + 84 - 8 - 6}{12}$$

$$= \frac{89 - 14}{12} = \frac{75}{12} = 6 \frac{3}{12}$$

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

$$\frac{1 \times 8 + 3 \times 4 - 5 \times 2 - 1 \times 1}{16} = \frac{8 + 12 - 10 - 1}{16} = \frac{9}{16}$$

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

$$\frac{35 \times 1 + 15 \times 2 + 13 \times 1 - 5 \times 2}{4} = \frac{35 + 30 - 13 - 10}{4}$$

$$\frac{35 - 13 + 30 - 10}{4} = \frac{42}{4}$$

$$f) 10\frac{5}{6} - 7\frac{2}{3} + 8\frac{1}{3} - 5\frac{1}{2} = \frac{65}{6} - \frac{23}{3} + \frac{25}{3} - \frac{11}{2}$$

$$\frac{65 \times 1 - 23 \times 2 + 25 \times 2 - 11 \times 3}{6} = \frac{65 + 50 - 46 + 33}{6}$$

$$= \frac{115 - 79}{6} = \frac{36}{6}$$

$$9) \quad 5\frac{5}{12} - 6 + 8 - 5\frac{3}{5} = \frac{65}{12} - \frac{6}{1} + \frac{8}{1} - \frac{28}{5}$$

$$\frac{65 \times 5 - 6 \times 60 + 8 \times 60 - 28 \times 12}{60} = \frac{325 + 480 - 360 + 336}{60}$$

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

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

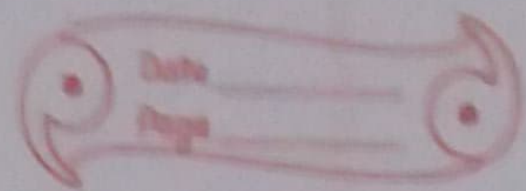
$$\frac{41 \times 2 + 51 \times 1 + 15 \times 8 + 3 \times 4}{8} = \frac{82 + 51 + 120 + 12}{8} = \frac{265}{8}$$

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

$$\frac{25 \times 10 - 41 \times 5 + 78 \times 2 - 5 \times 10}{10} = \frac{250 + 156 - 205 + 50}{10}$$

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



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

$$\frac{9 \times 3 - 9 \times 6 + 31 \times 6 - 23 \times 2}{42} = \frac{27 - 54 + 186 - 46}{42}$$

$$= \frac{113}{42}$$