

Simplify the following

1. $8\frac{3}{5} - (6\frac{1}{2} - 4\frac{1}{4} - 3\frac{3}{4})$

Ans) $8\frac{3}{5} - (6\frac{1}{2} - 4\frac{1}{4})$ BO

$8\frac{3}{5} - 6$ DMAS

Ans) $\frac{13}{5} = 2\frac{3}{5}$

2. $17\frac{1}{3} \div \left\{ 6\frac{2}{11} - (4 - 2\frac{3}{11} - 1) \right\}$

Ans) $17\frac{1}{3} \div \left\{ 6\frac{2}{11} - (4 - 1\frac{12}{11}) \right\}$

$17\frac{1}{3} \div \left(6\frac{2}{11} - \frac{30}{11} \right)$

~~$17\frac{1}{3} \div \frac{38}{11}$~~

Ans) $\frac{486}{33} = 14\frac{24}{33}$

Ans) $17\frac{1}{3} \div \left\{ 6\frac{2}{11} - (4 - 2\frac{3}{11} - 1) \right\}$

$17\frac{1}{3} \div \left\{ 6\frac{2}{11} - (4 - 2\frac{3}{11} - 1) \right\}$

$17\frac{1}{3} \div \left\{ 6\frac{2}{11} - (4 - 1\frac{12}{11}) \right\}$

$17\frac{1}{3} \div \left\{ 6\frac{2}{11} - \frac{30}{11} \right\}$

$17\frac{1}{3} \div \left(6\frac{2}{11} - \frac{30}{11} \right)$

~~$17\frac{1}{3} \div \frac{38}{11}$~~ $\frac{52}{3} \times \frac{11}{38} = \frac{286}{57} = 5\frac{1}{57}$

Ans) $5\frac{1}{57}$

$$3 \quad 3.2 \div \{1.8 \div 3 \div 1.5 + 0.6 - 0.4\}$$

$$= 3.2 \div \{1.8 + 2.2\}$$

$$= 3.2 \div 4$$

$$= 0.8 \quad \text{Ans) } 0.8$$

$$4 \quad 8 \frac{1}{4} + [4 \frac{1}{2} + \{8 \frac{1}{3} - (3 \frac{1}{2} - 6 \frac{3}{4} - 5 \frac{1}{2})\}]$$

$$= 8 \frac{1}{4} + [4 \frac{1}{2} + \{8 \frac{1}{3} - (3 \frac{1}{2} - \frac{26}{4})\}]$$

$$= 8 \frac{1}{4} + [4 \frac{1}{2} + \{8 \frac{1}{3} - (\frac{25}{4} - \frac{13}{2})\}]$$

$$= 8 \frac{1}{4} + [4 \frac{1}{2} + \{8 \frac{1}{3} - \frac{11}{4}\}]$$

$$= 8 \frac{1}{4} + [4 \frac{1}{2} + \frac{17}{12}]$$

$$= \frac{32}{4} + \frac{121}{12} = \frac{290}{12} \div 4 = \frac{55}{3}$$

$$4 \quad = \frac{33}{4} + [2 + \{2 \frac{25}{3} - (2 - \frac{27}{4} - \frac{11}{2})\}]$$

$$= \frac{33}{4} + [2 + \frac{25}{3} - (2 - \frac{27}{4} - \frac{11}{2})]$$

$$= \frac{33}{4} + [2 + \{\frac{25}{3} - 9\}]$$

$$= \frac{33}{4} + [2 + \frac{23}{12}]$$

$$= \frac{33}{4} + \frac{122}{12} = \frac{99}{12} + \frac{127}{12} = \frac{226}{12} = \frac{113}{6}$$

$$= 18 \frac{5}{6}$$

$$5 \quad 5\frac{3}{8} - [3\frac{3}{5} - \{1\frac{3}{8} - (\frac{3}{4} - \frac{1}{2} - \frac{1}{4})\}]$$

$$= \frac{43}{8} - [\frac{18}{5} - \{\frac{11}{8} - (\frac{3}{4} - \frac{1}{2})\}]$$

$$= \frac{43}{8} - [\frac{18}{5} - \{\frac{11}{8} - \frac{2}{4}\}]$$

$$= \frac{43}{8} - [\frac{18}{5} - \frac{7}{8}]$$

$$= \frac{43}{8} - \frac{109}{40}$$

$$\stackrel{Ans)}{\frac{106}{40}} = \frac{53}{20} = 2\frac{13}{20}$$

$$6 \quad 1 - [5\frac{1}{2} - \{2\frac{1}{2} + (1 + \frac{1}{6} + \frac{1}{4} - \frac{1}{12})\}]$$

$$= 1 - [\frac{11}{2} - \{\frac{5}{2} + (1 + \frac{1}{6} + \frac{5}{4} - \frac{1}{12})\}]$$

$$= 1 - [\frac{11}{2} - \{\frac{5}{2} + \frac{15}{6} + \frac{5}{4} - \frac{1}{12}\}]$$

$$= 1 - [\frac{11}{2} - \{\frac{5}{2} + \frac{28}{12}\}]$$

$$= 1 - [\frac{11}{2} - \frac{58}{12}]$$

$$= 1 - \frac{8}{12}$$

$$= \frac{70}{12} \div \frac{5}{3} = \frac{40}{12} \div \frac{8}{3} = \frac{5}{3} = 1\frac{2}{3}$$

$$7 \quad 7.2 + [0.2 + 10 - \{0.6 \div 0.3 - 0.8 - 0.6\}]$$

$$= 7.2 + [0.2 + 10 - \{0.6 \div 0.3 - 0.23\}]$$

$$= 7.2 + [0.2 + 10 - 0.2]$$

$$= 7.2 + [0.2 + 10]$$

$$= 7.2 + 50 = 57.2$$

$$8. 16 \div [0.1 + \{0.1 + (0.1 + 0.2 - 0.1)\}]$$

$$= 16 \div [0.1 + \{0.1 + (0.1 + 0.1)\}]$$

$$= 16 \div [0.1 + \{0.1 + 0.2\}]$$

$$= 16 \div [0.1 + 0.3]$$

$$= 16 \div [0.4]$$

$$= 40$$

$$19. 0.4 \div [1.5 \div \{0.6 \div (0.3 - 0.3 - 0.1)\}]$$

$$= 0.4 \div [1.5 \div \{0.6 \div 0.3\}]$$

$$= 0.5 \div [1.5 \div 6]$$

$$= 0.4 \div 2.5 \frac{1}{4}$$

$$= 1.6$$

9.

$$8.8 \div [0.5 \text{ of } 15 - \{6.2 \div 2 - (8.4 - 7.6)\}]$$

$$= 8.8 \div [0.5 \text{ of } 15 - \{6.2 \div 2 - 0.8\}]$$

$$= 8.8 \div [0.5 \text{ of } 15 - \{3.1 - 0.8\}]$$

$$= 8.8 \div [0.5 \text{ of } 15 - 2.3]$$

$$= 8.8 \div [0.7.5 - 2.3]$$

$$= 8.8 \div 5.2$$

$$= \frac{19}{13}$$