


16.2. Exercise 12 (B)

16.11.2 Simplify the following 

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

Ans  $\frac{43}{5} - (13\frac{1}{2} - \frac{17}{4} - \frac{15}{4})$

$$= \frac{43}{5} - (13\frac{2}{4} - \frac{2}{4})$$

$$= \frac{43}{5} - \frac{(26 - 2)}{4}$$

$$= \frac{43}{5} - \frac{24}{4} = \frac{43}{5} - 6$$

$$= \frac{43 - 30}{5} = \frac{13}{5} = 2\frac{3}{5}$$

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

Ans  $\frac{52}{3} \div \{ \frac{68}{11} - (4 - \frac{25}{11} - 1) \}$

$$\frac{52}{3} \div \{ \frac{68}{11} - (4 - 14) \}$$

Ans  $6 \div 19 = 4$  (Divide)  
 $\frac{52}{3} \div \{ \frac{68}{11} - (44 - 14) \}$   
 (Addition)

$20 + 30 = 50$  (Addition)

6.11.21  
HW

$$\frac{52}{3} \div \left\{ \frac{68 - 30}{11} \right\}$$

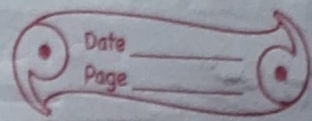
$$\frac{52}{3} \div 38$$

$$\frac{52}{3} \times \frac{11}{38} = \frac{26 \times 11}{3 \times 19} = \frac{286}{57} = 5 \frac{1}{57}$$



16.11.21

Hw



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

$$\text{Ans } \frac{33}{4} + [9 + \{ \frac{25}{3} - (\frac{7}{2} - \frac{27}{4} - \frac{11}{2}) \}]$$

$$= \frac{33}{4} + [9 + \{ \frac{25}{3} - (\frac{7}{2} - \frac{5}{4}) \}]$$

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

$$= \frac{33}{4} + [ \frac{9}{2} + \frac{73}{12} ]$$

$$= \frac{33}{4} + \frac{19}{12} = \frac{118}{12} = 9 \frac{10}{12}$$

~~$$5 \text{ ) } 5 \frac{3}{8} = [0.2 \text{ )}]$$~~

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

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

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

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



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

$$\frac{43}{8} - \frac{109}{40} = \frac{10653}{40} - \frac{53}{20} = 2 \frac{13}{20}$$

6.  $4 - \left[ 5 \frac{1}{2} - \{ 0.1 + (0.1 + 0.2) \} \right]$

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

Ans  $4 - \left[ 5 \frac{1}{2} - \left\{ 2 \frac{1}{2} \right\} \right]$

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

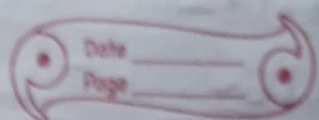
$$4 - \left[ \frac{11}{2} - \left\{ \frac{5}{2} + \left( \frac{29}{12} - \frac{1}{12} \right) \right\} \right]$$

$$4 - \left[ \frac{11}{2} - \left\{ \frac{5}{2} + \frac{28}{12} \right\} \right]$$

$$4 - \left[ \frac{11}{2} - \frac{58}{12} \right]$$

$$\frac{4}{1} = \frac{8}{2} = \frac{4020}{12} - \frac{10}{3} = 3 \frac{1}{3}$$

16.11.21



Hw

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

$$\text{Ans } 7.2 + [0.2 \text{ of } 10 - \{0.6 \div 0.3 - 0.2\}]$$

$$7.2 + [0.2 \text{ of } 10 - \{0.6 \div 0.3 - 0.2\}]$$

$$7.2 + [\frac{2}{10} \times 10 - \{0.6 \div 0.3 - 0.2\}]$$

$$7.2 + [2 - 0.6 \div 0.3 - 0.2]$$

$$7.2 + [2 - \{ \frac{6}{10} \div \frac{3}{10} - 0.2 \}]$$

$$7.2 + [2 - \{ \frac{2}{10} \times \frac{10}{3} - 0.2 \}]$$

$$7.2 + [2 - \{2 - 0.2\}]$$

$$7.2 + [2 - 1.8]$$

$$7.2 + 0.2$$

$$= 7.4$$



16.11.21

Hw

9)  $16 \div [0.1 + \{0.1 + (0.1 + 0.2 - 0.1)\}]$

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

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

$16 \div [0.1 + 0.3]$

$16 \div 0.4$

$16 \div \frac{4}{10} = \frac{16^4}{1} \times \frac{10}{4} = 40$

10)  $0.4 \div [1.5 \div \{0.6 \div (0.3 - 0.3 - 0.1)\}]$

Ans  ~~$0.4 \div [1.5 \div \{0.6 \div (0.3 - 0.3 - 0.1)\}]$~~

$0.4 \div [1.5 \div \{0.6 \div (0.3 - 0.2)\}]$

$0.4 \div [1.5 \div \{0.6 \div 0.1\}]$

$0.4 \div [1.5 \div 6]$

$0.4 \div 0.25$

$\frac{4}{10} \div \frac{25}{100} = \frac{4}{10} \times \frac{100}{25} = \frac{8}{5} = 1\frac{3}{5}$



16.11.21

Hw

9)  $8.8 \div [0.5 \text{ of } 15 - \{6.2 \div 2 - (8.4 - 7.6)\}]$

Ans ~~8.8~~

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

$8.8 \div [5 \times \frac{15}{2} - \{6.2 \div 2 - 0.8\}]$

$8.8 \div [7.5 - \{6.2 \div 2 - 0.8\}]$

$8.8 \div [7.5 - \{3.1 - 0.8\}]$

$8.8 \div [7.5 - 2.3]$

$8.8 \div 5.2 = \frac{88}{10} \div \frac{52}{10} =$

$\frac{88}{10} \times \frac{10}{52} = \frac{22}{13} = 1\frac{9}{13}$