ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

CLASS – IV TERM – SECOND SUBJECT- ARITHMETIC ANSWER WORKSHEET – 8 TOPIC – FRACTIONS DATE – 12.05.2020

1. Subtract and reduce to the lowest forms.

a) $\frac{9}{24} - \frac{5}{24}$

$= \frac{9-5}{24}$

$= \frac{4}{24}$

H. C. F. of 4 and 20 is 4

$\frac{4}{24} = \frac{4 \div 4}{24 \div 4} = \frac{1}{6}$

Hence, $\mathbf{\frac{1}{6}}$ is the lowest form of $\frac{4}{24}$

b) $\frac{7}{25} - \frac{2}{25}$

$= \frac{7-2}{25}$

$= \frac{5}{25}$

H. C. F. of 5 and 25 is 5

$\frac{5}{25} = \frac{5 \div 5}{25 \div 5} = \frac{1}{5}$

Hence, $\mathbf{\frac{1}{5}}$ is the lowest form of $\frac{5}{25}$

c) $\frac{14}{26} - \frac{8}{26}$

$= \frac{14-8}{26}$

$= \frac{6}{26}$

H. C. F. of 6 and 26 is 2

$\frac{6}{26} = \frac{6 \div 2}{26 \div 2} = \frac{3}{13}$

Hence, $\mathbf{\frac{3}{13}}$ is the lowest form of $\frac{6}{26}$

d) $\frac{12}{18} - \frac{6}{18}$

$= \frac{12-6}{18}$

$= \frac{6}{18}$

H. C. F. of 6 and 18 is 6

$\frac{6}{18} = \frac{6 \div 6}{18 \div 6} = \frac{1}{3}$

Hence, $\mathbf{\frac{1}{3}}$ is the lowest form of $\frac{6}{18}$

e) $\frac{13}{16} - \frac{5}{16}$

$= \frac{13-5}{16}$

$= \frac{8}{16}$

H. C. F. of 8 and 16 is 8

$\frac{8}{16} = \frac{8 \div 8}{16 \div 8} = \frac{1}{2}$

Hence, $\mathbf{\frac{1}{2}}$ is the lowest form of $\frac{8}{16}$

2. Add the following unlike fractions.

a) $\frac{4}{8} + \frac{2}{6}$

$= \frac{4 \text{ x } 6}{8 \text{ x } 6} + \frac{2 \text{ x } 8}{6 \text{ x } 8}$

$= \frac{24}{48} + \frac{16}{48}$

$= \frac{24+16}{48}$

$= \frac{40}{48}$ **Ans.** $\mathbf{\frac{40}{48}}$

b) $\frac{5}{7} + \frac{2}{9}$

$= \frac{5 \text{ x } 9}{7 \text{ x } 9} + \frac{2 \text{ x } 7}{9 \text{ x } 7}$

$= \frac{45}{63} + \frac{14}{63}$

$= \frac{45+14}{63}$

$= \frac{59}{63}$ **Ans.** $\mathbf{\frac{59}{63}}$

c) $\frac{4}{8} + \frac{3}{7}$

$= \frac{4 \text{ x } 7}{8 \text{ x } 7} + \frac{3 \text{ x } 8}{7 \text{ x } 8}$

$= \frac{28}{56} + \frac{24}{56}$

$= \frac{28+24}{56}$

$= \frac{52}{56}$ **Ans.** $\mathbf{\frac{52}{56}}$

d) $\frac{4}{9} + \frac{2}{5}$

$= \frac{4 \text{ x } 5}{9 \text{ x } 5} + \frac{2 \text{ x } 9}{5 \text{ x } 9}$

$= \frac{20}{45} + \frac{18}{45}$

$= \frac{20+18}{45}$

$= \frac{38}{45}$

Ans. $\mathbf{\frac{38}{45}}$

e) $\frac{6}{10} + \frac{4}{12}$

$= \frac{6 \times 12}{10 \times 12} + \frac{4 \times 10}{12 \times 10}$

$= \frac{72}{120} + \frac{40}{120}$

$= \frac{72+40}{120}$

$= \frac{112}{120}$

Ans. $\mathbf{\frac{112}{120}}$

3. Subtract the following unlike fractions.

a) $\frac{11}{13} - \frac{7}{9}$

$= \frac{11 \times 9}{13 \times 9} - \frac{7 \times 13}{9 \times 13}$

$= \frac{99}{117} - \frac{91}{117}$

$= \frac{99-91}{117}$

$= \frac{8}{117}$

Ans. $\mathbf{\frac{8}{117}}$

b) $\frac{9}{12} - \frac{4}{8}$

$= \frac{9 \times 8}{12 \times 8} - \frac{4 \times 12}{8 \times 12}$

$= \frac{72}{96} - \frac{48}{96}$

$= \frac{72-48}{96}$

$= \frac{24}{96}$

Ans. $\mathbf{\frac{24}{96}}$

c) $\frac{7}{11} - \frac{2}{4}$

$= \frac{7 \times 4}{11 \times 4} - \frac{2 \times 11}{4 \times 11}$

$= \frac{28}{44} - \frac{22}{44}$

$= \frac{28-22}{44}$

$= \frac{6}{44}$

Ans. $\mathbf{\frac{6}{44}}$

d) $\frac{7}{10} - \frac{4}{15}$

$= \frac{7 \times 15}{10 \times 15} - \frac{4 \times 10}{15 \times 10}$

$= \frac{105}{150} - \frac{40}{150}$

$= \frac{105 - 40}{150}$

$= \frac{65}{150}$ **Ans.** $\mathbf{\frac{65}{150}}$

e) $\frac{9}{15} - \frac{6}{20}$

$= \frac{9 \times 20}{15 \times 20} - \frac{6 \times 15}{20 \times 15}$

$= \frac{180}{300} - \frac{90}{300}$

$= \frac{180 - 90}{300}$

$= \frac{90}{300}$ **Ans.** $\mathbf{\frac{90}{300}}$

4. Add and reduce to the lowest forms.

a) $\frac{4}{6} + \frac{2}{9}$

$= \frac{4 \times 9}{6 \times 9} + \frac{2 \times 6}{9 \times 6}$

$= \frac{36}{54} + \frac{12}{54}$

$= \frac{36+12}{54}$

$= \frac{48}{54}$

H. C. F. of 48 and 54 is 6

$\frac{48}{54} = \frac{48 \div 6}{54 \div 6} = \frac{8}{9}$

Hence, $\mathbf{\frac{8}{9}}$ is the lowest form of $\frac{48}{54}$

b) $\frac{3}{8} + \frac{2}{6}$

$= \frac{3 \times 6}{8 \times 6} + \frac{2 \times 8}{6 \times 8}$

$= \frac{18}{48} + \frac{16}{48}$

$= \frac{18+16}{48}$

$= \frac{34}{48}$

H. C. F. of 34 and 48 is 2

$\frac{34}{48} = \frac{34 \div 2}{48 \div 2} = \frac{17}{24}$

Hence, $\mathbf{\frac{17}{24}}$ is the lowest form of $\frac{34}{48}$

c) $\frac{4}{9} + \frac{2}{8}$

$= \frac{4 \times 8}{9 \times 8} + \frac{2 \times 9}{8 \times 9}$

$= \frac{32}{72} + \frac{18}{72}$

$= \frac{32+18}{72}$

$= \frac{50}{72}$

H. C. F. of 50 and 72 is 2

$\frac{50}{72} = \frac{50 \div 2}{72 \div 2} = \frac{25}{36}$

Hence, $\mathbf{\frac{25}{36}}$ is the lowest form of $\frac{50}{72}$

d) $\frac{3}{10} + \frac{5}{8}$

$= \frac{3 \times 8}{10 \times 8} + \frac{5 \times 10}{8 \times 10}$

$= \frac{24}{80} + \frac{50}{80}$

$= \frac{24+50}{80}$

$= \frac{74}{80}$

H. C. F. of 74 and 80 is 2

$\frac{74}{80} = \frac{74 \div 2}{80 \div 2} = \frac{37}{40}$

Hence, $\mathbf{\frac{37}{40}}$ is the lowest form of $\frac{74}{80}$

e) $\frac{2}{5} + \frac{1}{10}$

$= \frac{2 \times 10}{5 \times 10} + \frac{1 \times 5}{10 \times 5}$

$= \frac{20}{50} + \frac{5}{50}$

$= \frac{20+5}{50}$

$= \frac{25}{50}$

H. C. F. of 25 and 50 is 25

$\frac{25}{50} = \frac{25 \div 25}{50 \div 25} = \frac{1}{2}$

Hence, $\mathbf{\frac{1}{2}}$ is the lowest form of $\frac{25}{50}$

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