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EX - 9 (D) HW - 9/9/21

1) Divide

a) $\frac{35}{44} \div 70 = \frac{35}{44} \div \frac{70}{1}$

(Reciprocal of $\frac{70}{1} = \frac{1}{70}$)

$\therefore \frac{\cancel{35}^{5\cancel{1}}}{44} \times \frac{1}{\cancel{70}\cancel{10}2} = \frac{1}{88}$ Ans

b) $\frac{12}{13} \div \frac{15}{\cancel{0}} = \frac{12}{13} \div \frac{15}{1}$

(Reciprocal of $\frac{15}{1} = \frac{1}{15}$)

$\therefore \frac{\cancel{12}^{4}}{13} \times \frac{1}{\cancel{15}_{5}} = \frac{4}{65}$ Ans

c) $\frac{8}{13} \div \frac{2}{13}$

Reciprocal of $\frac{2}{13} = \frac{13}{2}$

ans :- $\frac{8}{13} \times \frac{13}{2} = \frac{104}{26} = 4$ Ans

d) $\frac{5}{12} \div \frac{10}{21}$

ans - $\frac{5}{12} \times \frac{21}{10} = \frac{7}{8}$

e) $\frac{22}{25} \div \frac{11}{15}$

ans - $\frac{22}{25} \times \frac{15}{11} = \frac{330}{275} = \frac{6}{5}$ or $1\frac{1}{5}$

f) $\frac{26}{27} \div \frac{13}{15}$ reciprocal of $\frac{13}{15} = \frac{15}{13}$

$= \frac{26}{27} \times \frac{15}{13} = \frac{390}{351} = \frac{10}{9} = 1\frac{1}{9}$

g) $45 \div \frac{3}{8} = \frac{45}{1} \div \frac{3}{8}$

Reciprocal of $\frac{3}{8} = \frac{8}{3}$

$\therefore \frac{\cancel{45}^{15}}{1} \times \frac{8}{\cancel{3}} = 120$

h) $91 \div \frac{26}{27} = \frac{91}{1} \div \frac{26}{27}$ (Reciprocal of $\frac{26}{27}$)

$\therefore \frac{\cancel{91}^{7}}{1} \times \frac{27}{\cancel{26}_{2}} = \frac{189}{2} = 94\frac{1}{2}$

i) $12\frac{4}{15} \div 2\frac{1}{27} = \frac{184}{15} \div \frac{55}{27}$

(Reciprocal of $\frac{55}{27} = \frac{27}{55}$)

$\therefore \frac{184}{\cancel{15}_{5}} \times \frac{\cancel{27}^{9}}{55} = \frac{1656}{275} = 6\frac{6}{275}$

J) $\frac{3}{4} \div \frac{1}{2} \div \frac{6}{7}$

$= \frac{3}{\cancel{4}_{2}} \times \frac{\cancel{2}}{1} \times \frac{7}{\cancel{6}_{2}} = \frac{7}{4} = 1\frac{3}{4}$

K) $2\frac{1}{4} \div 1\frac{3}{10} \div \frac{3}{13}$

$= \frac{\cancel{9}^{3}}{\cancel{4}\cancel{8}_{2}} \times \frac{\cancel{10}^{5}}{\cancel{30}} \times \frac{\cancel{13}}{\cancel{3}} = \frac{130}{\cancel{8}0} = \frac{15}{2} = 7\frac{1}{2}$

1) $4\frac{3}{3} \div 1\frac{1}{2} \div 1\frac{2}{3} = \frac{14}{3} \div \frac{3}{2} \div \frac{5}{3}$

(Reciprocal of $\frac{3}{2}$ and $\frac{5}{3} = \frac{2}{3}$ & $\frac{3}{5}$)

$\therefore \frac{14}{3} \times \frac{\cancel{3}}{\cancel{3}_{1}} \times \frac{\cancel{2}}{5} = \frac{28}{15} = 1\frac{13}{15}$

Q2. Find the quotient in simplest form

a $\dfrac{\frac{3}{5}}{\frac{7}{10}} = \frac{3}{5} \div \frac{7}{10}$ (Reciprocal of $\frac{7}{10} = \frac{10}{7}$)

$\therefore \frac{3}{\cancel{5}_{1}} \times \frac{\cancel{10}^{2}}{7} = \frac{6}{7}$

b. $\dfrac{\frac{5}{16}}{\frac{9}{14}} = \frac{5}{16} \div \frac{9}{14}$ (Reciprocal of $\frac{9}{14} = \frac{14}{9}$)

$$\frac{5}{8} \times \frac{7}{9} = \frac{35}{72}$$

c) $$\frac{\frac{8}{15}}{\frac{35}{36}} = \left(\frac{8}{15} \div \frac{35}{36}\right) = \left(\text{Reciprocal of } \frac{35}{36} = \frac{36}{35}\right)$$

$$= \frac{8}{5} \times \frac{12}{35} = \frac{96}{175}$$

d) $$\frac{\frac{12}{17}}{5} = \frac{12}{17} \div \frac{5}{1} \left(\text{Reciprocal of } \frac{5}{1} = \frac{1}{5}\right)$$

$$\frac{12}{17} \times \frac{1}{5} = \frac{12}{85}$$

i) $$\frac{24}{3\frac{1}{3}} = \frac{24}{1} \div \frac{10}{3} \quad \left(\text{Reciprocal of } \frac{10}{3} = \frac{3}{10}\right)$$

$$\therefore \frac{24}{1} \times \frac{3}{10} = \frac{36}{5} = 7\frac{1}{5} \text{ Ans}$$

ii) $$\frac{3\frac{3}{4}}{1\frac{1}{2}} = \frac{15}{4} \div \frac{3}{2} \quad \left(\text{Reciprocal of } \frac{3}{2} = \frac{2}{3}\right) \therefore \frac{15}{4} \times \frac{2}{3} = \frac{5}{2}$$

$2\frac{1}{2}$ Ans

e) $\frac{\frac{8}{6}}{7} = \frac{8}{6} \div \frac{7}{1}$ (Reciprocal of $\frac{7}{1} = \frac{1}{7}$)

$\frac{8}{6} \times \frac{1}{7} = \frac{8^{4}}{42_{21}} = \frac{4}{21}$

f) $\frac{\frac{2}{19}}{4} = \frac{2}{19} \div \frac{4}{1}$ (Reciprocal of $\frac{4}{1} = \frac{1}{4}$)

$\therefore \frac{2}{19} \times \frac{1}{4_{2}} = \frac{1}{38}$ ans

g) $\frac{\frac{7}{9}}{28} = \frac{7}{9} \div \frac{28}{1}$ (Reciprocal of $\frac{28}{1} = \frac{1}{28}$)

$\therefore \frac{7}{9} \times \frac{1}{28_{4}} = \frac{1}{36}$ ANS

h) $\frac{\frac{5}{3}}{10} = \frac{5}{3} \div \frac{10}{1}$ (Reciprocal of $\frac{10}{1} = \frac{1}{10}$)

$\therefore \frac{5}{3} \times \frac{1}{10_{2}} = \frac{1}{6}$ ANS

i) $\frac{\frac{20}{7}}{15} = \frac{20}{1} \div \frac{7}{15}$ (Reciprocal of $\frac{7}{15} = \frac{15}{7}$)

$\therefore \frac{20}{1} \times \frac{15}{7} = \frac{300}{7}$ $42\frac{6}{7}$

j) $\frac{\frac{10}{12}}{3} = \frac{10}{1} \div \frac{5}{3}$ (Reciprocal of $\frac{5}{3} = \frac{3}{5}$)

$\therefore \frac{2\,10}{1} \times \frac{3}{5_{1}} = 6$ ANS