CW
8/9/21

Ex-9(D)

1) Divide:

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

$= \frac{\cancel{35} \times 1}{44 \times \cancel{70}_{2}} = \frac{1}{88}$

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

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

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

$= \frac{\cancel{8}^{4} \times \cancel{13}^{1}}{\cancel{13}_{1} \times \cancel{2}} = \frac{4}{1} = 4$

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

$= \frac{\cancel{5}^{1} \times \cancel{21}^{7}}{\cancel{12}_{4} \times \cancel{10}_{2}} = \frac{7}{8}$

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

$= \frac{\cancel{22}^{2} \times \cancel{15}^{3}}{\cancel{25}_{5} \times \cancel{11}_{1}} = \frac{6}{5} = 1\frac{1}{5}$

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

$= \frac{\cancel{26}^{2} \times \cancel{15}^{5}}{\cancel{27}_{9} \times \cancel{13}_{1}} = \frac{10}{9} = 1\frac{1}{9}$

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

$$= \frac{\overset{15}{\cancel{45}} \times 8}{1 \times \cancel{3}_{1}} = \frac{120}{1} = 120$$

h) $91 \div \frac{26}{27}$

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

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

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

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

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

k) $2\frac{1}{4} \div 1\frac{3}{10} \div \frac{3}{13} = \frac{9}{4} \div \frac{13}{10} \div \frac{3}{13}$

$= \frac{\overset{3}{\cancel{9}} \times 10 \times \overset{3}{\cancel{13}}}{\underset{2}{\cancel{4}} \times 13 \times \cancel{3}} = \frac{15}{2} = 7\frac{1}{2}$

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

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

~~Hw~~ 9/9/21

2. Find the quotient in its simplest form.

a) $\dfrac{\frac{3}{5}}{\frac{7}{10}}$

$= \dfrac{3}{\cancel{5}} \times \dfrac{\cancel{10}^{2}}{7} = \dfrac{6}{7}$

b) $\dfrac{\frac{5}{16}}{\frac{9}{14}}$

$= \dfrac{5}{\cancel{16}\,8} \times \dfrac{\cancel{14}^{7}}{9} = \dfrac{35}{72}$

c) $\dfrac{\frac{8}{15}}{\frac{35}{36}}$

$= \dfrac{8}{\cancel{15}\,5} \times \dfrac{\cancel{36}^{12}}{35} = \dfrac{96}{175}$

d) $\frac{\frac{12}{17}}{5}$

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

e) $\frac{\frac{8}{6}}{7}$

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

f) $\frac{\frac{2}{19}}{4}$

$= \frac{2^{1}}{19} \times \frac{1}{4^{2}} = \frac{1}{38}$

g) $\frac{\frac{7}{9}}{28}$

$= \frac{\cancel{2}^{1}}{9} \times \frac{1}{\cancel{28}_{4}} = \frac{1}{36}$

h) $\frac{\cancel{3}^{1}}{3} \times \frac{\cancel{1}}{\cancel{12}_{2}} = \frac{\cancel{1}}{6}$

~~i) 20~~

h) $\frac{5}{\frac{3}{10}}$

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

i) $\frac{20}{\frac{7}{5}}$

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

j) $\frac{10}{1\frac{2}{3}} = \frac{10}{1} \div \frac{5}{3}$

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

k) $\frac{24}{3\frac{1}{3}} = \frac{24}{1} \div \frac{10}{3}$

$= \frac{\cancel{24}^{12}}{1} \times \frac{3}{\cancel{10}_{5}} = \frac{36}{5} = 7\frac{1}{5}$

l) $\frac{3\frac{3}{4}}{1\frac{1}{2}} = \frac{15}{4} \div \frac{3}{2}$

$= \frac{\cancel{15}^{5}}{\cancel{4}_{2}} \times \frac{\cancel{2}^{1}}{\cancel{3}_{1}} = \frac{5}{2} = 2\frac{1}{2}$