

H.W  
11.9.21  
Saturday

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## Exercise - 9 (D)

1. Divide.

$$a) \frac{35}{34} \div 70$$

$$= \frac{35^1 \times 1}{44 \times \cancel{70}_2} = \frac{1}{88}$$

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

$$= \frac{12^1 \times 1}{13 \times \cancel{15}_5} = \frac{4}{65}$$

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

$$= \frac{8^1 \times \cancel{13}_1}{\cancel{13}_1 \times 2^1} = \frac{4}{1} = 4$$

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

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

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

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

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

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

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

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

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

$$= \frac{91^1 \times 27^1}{1 \times 26^2} = \frac{189}{2} = 94 \frac{1}{2}$$

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

$$= \frac{184}{15} \times \frac{27^1}{55} = \frac{1656}{275} = 6 \frac{6}{275}$$

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

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

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

$$= \frac{9}{4^2} \times \frac{10^5}{13} = \frac{45^{15}}{26^2} \times \frac{13^1}{3^1} = \frac{15}{2} = 7 \frac{1}{2}$$

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

$$= \frac{14}{3} \times \frac{2}{3} = \frac{28}{9} \times \frac{2}{5} = \frac{28}{15} = 1\frac{13}{15}$$

2. Find the quotient in its simplest form.

a.  $\frac{\frac{3}{5}}{\frac{7}{10}}$  The reciprocal of  $\frac{7}{10}$  is  $\frac{10}{7}$ .

$$\frac{3}{5} \times \frac{10^2}{7 \cdot 7} = \frac{6}{7}$$

b.  $\frac{\frac{5}{16}}{\frac{9}{14}}$  The reciprocal of  $\frac{9}{14}$  is  $\frac{14}{9}$ .

$$\frac{5}{16} \times \frac{14^7}{9 \cdot 72} = \frac{35}{72}$$

c.  $\frac{\frac{8}{15}}{\frac{35}{36}}$  The reciprocal of  $\frac{35}{36}$  is  $\frac{36}{35}$ .

$$\frac{8}{15} \times \frac{36^{12}}{35} = \frac{96}{175}$$

d.  $\frac{\frac{12}{17}}{5}$  The reciprocal of  $\frac{5}{1}$  is  $\frac{1}{5}$ .

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

e.  $\frac{\frac{8}{6}}{7}$  The reciprocal of  $\frac{7}{1}$  is  $\frac{1}{7}$ .

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

f.  $\frac{\frac{2}{19}}{4}$  The reciprocal of  $\frac{4}{1}$  is  $\frac{1}{4}$ .

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

g.  $\frac{7}{9}$  The reciprocal of  $\frac{28}{1}$  is  $\frac{1}{28}$ .

$$\frac{7}{9} \times \frac{1}{28} = \frac{1}{36}$$

h.  $\frac{5}{3}$  The reciprocal of  $\frac{10}{1}$  is  $\frac{1}{10}$ .

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

i.  $\frac{20}{7}$  The reciprocal of  $\frac{7}{15}$  is  $\frac{15}{7}$ .

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

j.  $\frac{10}{12}$  =  $\frac{10}{3}$  The reciprocal of  $\frac{5}{3}$  is  $\frac{3}{5}$ .

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

K.  $\frac{24}{3\frac{1}{3}} = \frac{24}{\frac{10}{3}}$  The reciprocal of  $\frac{10}{3}$  is  $\frac{3}{10}$ .

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

L.  $\frac{3\frac{3}{4}}{1\frac{1}{2}} = \frac{15}{\frac{3}{2}}$  The reciprocal of  $\frac{3}{2}$  is  $\frac{2}{3}$ .

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