

Dividing fractions - Activity 1

Memorandum - 04.05.2020

$$\begin{aligned} 1) \quad & \frac{2}{5} \div \frac{3}{4} \\ &= \frac{2}{5} \times \frac{4}{3} \\ &= \frac{8}{15} \end{aligned}$$

$$\begin{aligned} 2) \quad & \frac{2}{4} \div \frac{1}{2} \\ &= \frac{2}{\cancel{4}_2} \times \frac{2}{1} \\ &= \frac{2}{2} \\ &= 1 \end{aligned}$$

$$\begin{aligned} 3) \quad & \frac{4}{5} \div \frac{2}{3} \\ &= \frac{\cancel{4}_2}{5} \times \frac{3}{\cancel{2}_1} \\ &= \frac{6}{5} \end{aligned}$$

$$\begin{aligned} 4) \quad & \frac{2}{5} \div \frac{3}{2} \\ &= \frac{\cancel{2}_1}{5} \times \frac{2}{\cancel{3}_1} \\ &= \frac{2}{5} \end{aligned}$$

$$\begin{aligned} 5) \quad & \frac{2}{4} \div \frac{1}{5} \\ &= \frac{\cancel{2}_1}{\cancel{4}_2} \times \frac{5}{1} \\ &= \frac{5}{2} \end{aligned}$$

$$\begin{aligned} 6) \quad & \frac{3}{4} \div \frac{5}{4} \\ &= \frac{3}{\cancel{4}_1} \times \frac{\cancel{4}_1}{5} \\ &= \frac{3}{5} \end{aligned}$$

$$\begin{aligned} 7) \quad & \frac{1}{2} \div \frac{6}{10} \\ &= \frac{1}{\cancel{2}_1} \times \frac{\cancel{10}_5}{6} \\ &= \frac{5}{6} \end{aligned}$$

$$\begin{aligned} 8) \quad & \frac{1}{2} \div \frac{2}{3} \\ &= \frac{1}{2} \times \frac{3}{2} \\ &= \frac{3}{4} \end{aligned}$$

$$\begin{aligned} 9) \quad & \frac{2}{4} \div \frac{3}{10} \\ &= \frac{\cancel{2}_1}{\cancel{4}_2} \times \frac{\cancel{10}_5}{3} \\ &= \frac{5}{3} \end{aligned}$$

$$\begin{aligned} 10) \quad & \frac{2}{3} \div \frac{1}{5} \\ &= \frac{2}{3} \times \frac{5}{1} \\ &= \frac{10}{3} \end{aligned}$$

Dividing fractions - (Mixed Number)

Memorandum - 05.05.2020

Activity 2

$$\begin{aligned} 1) \quad 3\frac{2}{7} \div 1\frac{1}{4} \\ &= \frac{23}{7} \div \frac{5}{4} \\ &= \frac{23}{7} \times \frac{4}{5} \\ &= \frac{92}{35} \end{aligned}$$

$$\begin{aligned} 2) \quad 1\frac{2}{3} \div 3\frac{1}{3} \\ &= \frac{5}{3} \div \frac{10}{3} \\ &= \frac{5}{3} \times \frac{3}{10} \\ &= \frac{1}{2} \end{aligned}$$

$$\begin{aligned} 3) \quad 2\frac{1}{4} \div 1\frac{1}{2} \\ &= \frac{9}{4} \div \frac{3}{2} \\ &= \frac{9}{4} \times \frac{2}{3} \\ &= \frac{3}{2} \end{aligned}$$

$$\begin{aligned} 4) \quad 6\frac{1}{2} \div 2\frac{2}{3} \\ &= \frac{13}{2} \div \frac{8}{3} \\ &= \frac{13}{2} \times \frac{3}{8} \\ &= \frac{39}{16} \end{aligned}$$

$$\begin{aligned} 5) \quad 2\frac{1}{10} \div 2\frac{3}{5} \\ &= \frac{21}{10} \div \frac{13}{5} \\ &= \frac{21}{10} \times \frac{5}{13} \\ &= \frac{21}{26} \end{aligned}$$

$$\begin{aligned} 6) \quad 1\frac{1}{3} \times 1\frac{2}{3} \\ &= \frac{4}{3} \times \frac{5}{3} \\ &= \frac{20}{9} \end{aligned}$$

$$\begin{aligned} 7) \quad 1\frac{1}{3} \times 2\frac{1}{5} \\ &= \frac{4}{3} \times \frac{11}{5} \\ &= \frac{44}{15} \end{aligned}$$

$$\begin{aligned} 8) \quad 2\frac{1}{7} \div 2\frac{1}{2} \\ &= \frac{15}{7} \div \frac{5}{2} \\ &= \frac{15}{7} \times \frac{2}{5} \\ &= \frac{6}{7} \end{aligned}$$

$$\begin{aligned} 9) \quad 1\frac{3}{11} \div 2\frac{1}{3} \\ &= \frac{14}{11} \div \frac{7}{3} \\ &= \frac{14}{11} \times \frac{3}{7} \\ &= \frac{6}{11} \end{aligned}$$

$$\begin{aligned} 10) \quad 3\frac{1}{2} \div 2\frac{3}{4} \\ &= \frac{7}{2} \div \frac{11}{4} \\ &= \frac{7}{2} \times \frac{4}{11} \\ &= \frac{14}{11} \end{aligned}$$

Activity 3 - Memorandum

6.05.2020

$$\begin{aligned} 1) \quad & 3\frac{1}{2} \times 1\frac{4}{7} \times 1\frac{1}{3} \\ &= \frac{\cancel{7}^1}{2} \times \frac{\cancel{11}^1}{\cancel{7}_1} \times \frac{4}{3} \\ &= \frac{44}{6} \\ &= \frac{22}{3} \end{aligned}$$

$$\begin{aligned} 2) \quad & 3\frac{1}{2} \times 1\frac{1}{7} \div 1\frac{1}{4} \\ &= \left(\frac{\cancel{7}^1}{2} \times \frac{\cancel{8}^4}{\cancel{7}_1} \right) \div \frac{5}{4} \\ &= \frac{4}{1} \times \frac{4}{5} \\ &= \frac{16}{5} \end{aligned}$$

$$\begin{aligned} 3) \quad & 1\frac{1}{3} \times 1\frac{5}{7} \div 1\frac{3}{4} \\ &= \left(\frac{\cancel{4}^1}{3} \times \frac{\cancel{12}^4}{\cancel{7}_1} \right) \div \frac{7}{4} \\ &= \frac{16}{7} \times \frac{4}{7} \\ &= \frac{64}{49} \end{aligned}$$

$$\begin{aligned} 4) \quad & 1\frac{1}{4} \times 10\frac{1}{2} \div 1\frac{1}{2} \\ &= \left(\frac{5}{4} \times \frac{21}{2} \right) \div \frac{3}{2} \\ &= \frac{35 \times \cancel{10}^5}{\cancel{8}_4} \times \frac{\cancel{2}^1}{\cancel{3}_1} \\ &= \frac{35}{4} \end{aligned}$$

$$\begin{aligned} 5) \quad & 1\frac{3}{4} \div \left(3\frac{2}{3} \div 3\frac{1}{3} \right) \\ &= \frac{7}{4} \div \left(\frac{\cancel{11}^1}{3} \div \frac{10}{3} \right) \\ &= \frac{7}{4} \div \left(\frac{\cancel{11}^1}{\cancel{3}_1} \times \frac{\cancel{3}^1}{10} \right) \\ &= \frac{7}{4} \div \frac{11}{10} \\ &= \frac{7}{4} \times \frac{105}{11} \\ &= \frac{35}{22} \end{aligned}$$

$$\begin{aligned} 6) \quad & 4\frac{1}{2} \times 3\frac{3}{4} \times 2\frac{2}{3} \\ &= \frac{9}{2} \times \frac{\cancel{15}^5}{\cancel{4}_1} \times \frac{\cancel{8}^2}{\cancel{3}_1} \\ &= \frac{90}{2} \\ &= 45 \end{aligned}$$

$$\begin{aligned} 7) \quad & 2\frac{5}{7} \div \left(1\frac{8}{11} \times 1\frac{2}{3} \right) \\ &= \frac{19}{7} \div \left(\frac{19}{11} \times \frac{5}{3} \right) \\ &= \frac{19}{7} \div \frac{95}{33} \\ &= \frac{\cancel{19}^1}{7} \times \frac{33}{\cancel{95}_5} \\ &= \frac{33}{35} \end{aligned}$$

$$\begin{aligned} 8) \quad & 2\frac{1}{4} \times 1\frac{2}{3} \div 1\frac{1}{2} \\ &= \frac{\cancel{8}^2}{4} \times \frac{5}{\cancel{3}_1} \div \frac{3}{2} \\ &= \frac{\cancel{15}^5}{\cancel{4}_2} \times \frac{\cancel{2}^1}{\cancel{3}_1} \\ &= \frac{5}{2} \end{aligned}$$

Fraction of whole number - 7.05.2020

Memorandum - Activity 4.

$$\begin{aligned} 1. & \frac{3}{4} \text{ of } 16 \\ &= \frac{3}{\cancel{4}_1} \times \frac{16}{1} \\ &= \frac{12}{1} \\ &= 12 \end{aligned}$$

$$\begin{aligned} 2) & \frac{4}{5} \text{ of } 250 \\ &= \frac{4}{\cancel{5}_1} \times \frac{250}{1} \\ &= \frac{200}{1} \\ &= 200 \end{aligned}$$

$$\begin{aligned} 3) & \frac{4}{7} \text{ of } 2100 \\ &= \frac{4}{\cancel{7}_1} \times \frac{2100}{1} \\ &= \frac{1200}{1} \\ &= 1200 \end{aligned}$$

$$\begin{aligned} 4) & \frac{2}{6} \text{ of } 120 \\ &= \frac{2}{\cancel{6}_1} \times \frac{120}{1} \\ &= \frac{40}{1} \\ &= 40 \end{aligned}$$

$$\begin{aligned} 5) & \frac{2}{3} \text{ of } 240 \\ &= \frac{2}{\cancel{3}_1} \times \frac{240}{1} \\ &= \frac{160}{1} \\ &= 160 \end{aligned}$$

$$\begin{aligned} 6) & \frac{3}{8} \text{ of } 320 \\ &= \frac{3}{\cancel{8}_1} \times \frac{320}{1} \\ &= 120 \end{aligned}$$

Sue spends

R320 - R120 = R200 is left over.

$$\begin{aligned} 7) & \frac{3}{5} \text{ of } 600 \\ &= \frac{3}{\cancel{5}_1} \times \frac{600}{1} \\ &= \frac{360}{1} \end{aligned}$$

= R360 is Owana's share

$$\begin{aligned} & \frac{2}{5} \text{ of } 600 \\ &= \frac{2}{\cancel{5}_1} \times \frac{600}{1} \\ &= \frac{240}{1} \end{aligned}$$

= R240 is her sister's share.

$$R360 + R240 = R600.$$