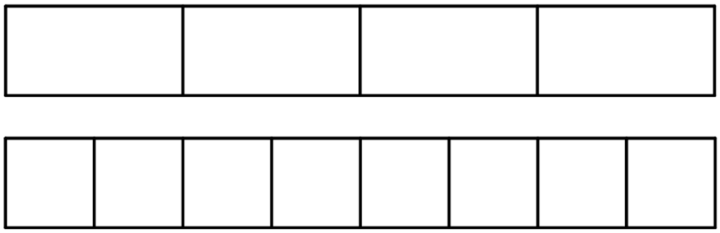
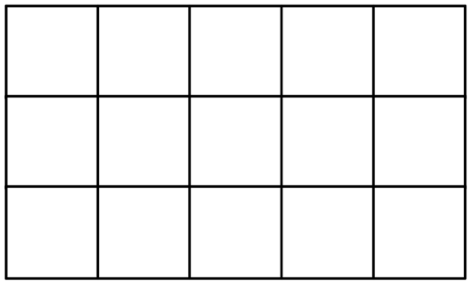
1) Copy the fraction strips shown below and use shading to determine the value of one half of three quarters. Write a corresponding multiplication statement.



2) Copy the area model shown below and use shading to determine the value of two thirds of four fifths. Write a corresponding multiplication statement.



3) Multiply.

a) $\frac{1}{3}\times\frac{2}{3}$ b) $\frac{2}{3}\times\frac{4}{5}$ c) $\left(\frac{3}{7}\right)\left(\frac{2}{5}\right)$ d) $\left(\frac{1}{5}\right)\left(\frac{1}{6}\right)$ e) $\frac{3}{4}\times\frac{2}{5}$ f) $\left(\frac{5}{12}\right)\left(\frac{9}{14}\right)$

4) Multiply.

a) $\frac{1}{2}\times\frac{1}{3}\times\frac{1}{4}$ b) $\frac{2}{3}\times\frac{3}{5}\times\frac{1}{2}$ c) $\frac{4}{10}\times\frac{5}{10}\times\frac{3}{10}$ d) $\left(\frac{2}{7}\right)\left(\frac{1}{3}\right)\left(\frac{3}{5}\right)$ e) $\left(\frac{3}{4}\right)\left(\frac{5}{6}\right)\left(\frac{7}{10}\right)$

5) Divide.

a) $\frac{2}{5}\div\frac{1}{2}$ b) $\frac{1}{7}\div\frac{2}{3}$ c) $\frac{5}{11}\div\frac{3}{4}$ d) $\frac{1}{6}\div\frac{1}{4}$ e) $\frac{3}{10}\div\frac{6}{7}$ f) $\frac{9}{14}\div\frac{5}{6}$

6) Use the standard order of operations (BEDMAS) to evaluate each of the following.

a) $\frac{2}{3}\times\frac{4}{5}-\frac{1}{6}$ b) $\left(\frac{2}{5}\right)\left(\frac{2}{3}\right)+\left(\frac{4}{9}\right)\left(\frac{2}{5}\right)$ c) $\frac{2}{7}+\frac{9}{14}-\frac{3}{4}$

d) $\frac{5}{6}-\frac{1}{4}\div\frac{1}{2}+\frac{5}{8}$ e) $\left(\frac{1}{5}+\frac{2}{3}\right)-\left(\frac{4}{5}-\frac{1}{3}\times\frac{1}{2}\right)$ f) $\left(\frac{1}{2}+\frac{3}{7}\right)\left(\frac{3}{4}-\frac{1}{3}\right)$

ANSWERS

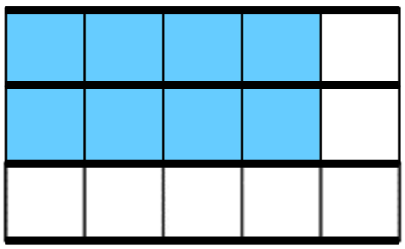
1)

Three quarters

One half of three quarters $= \frac{3}{8}$

$$\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$$

2)



Two thirds of four fifths $= \frac{8}{15}$

$$\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$$

3) a) $\frac{2}{9}$ b) $\frac{8}{15}$ c) $\frac{6}{35}$ d) $\frac{1}{30}$ e) $\frac{6}{20}$ $\left(\text{or } \frac{3}{10}\right)$ f) $\frac{45}{168}$ $\left(\text{or } \frac{15}{56}\right)$

4) a) $\frac{1}{24}$ b) $\frac{6}{30}$ $\left(\text{or } \frac{1}{5}\right)$ c) $\frac{60}{1000}$ $\left(\text{or } \frac{3}{50}\right)$ d) $\frac{6}{105}$ $\left(\text{or } \frac{2}{35}\right)$ e) $\frac{105}{240}$ $\left(\text{or } \frac{7}{16}\right)$

5) a) $\frac{4}{5}$ b) $\frac{3}{14}$ c) $\frac{20}{33}$ d) $\frac{4}{6}$ $\left(\text{or } \frac{2}{3}\right)$ e) $\frac{21}{60}$ $\left(\text{or } \frac{7}{20}\right)$ f) $\frac{54}{70}$ $\left(\text{or } \frac{27}{35}\right)$

6) a) $\frac{11}{30}$ b) $\frac{20}{45}$ $\left(\text{or } \frac{4}{9}\right)$ c) $\frac{5}{28}$ d) $\frac{23}{24}$ e) $\frac{7}{30}$ f) $\frac{65}{168}$