Multiplying Fractions

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Examples

Workout

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Work out each of the following multiplications. Ouestion 1: Give each answer in its simplest form.

(a)
$$\frac{1}{2} \times \frac{1}{5}$$

(a)
$$\frac{1}{2} \times \frac{1}{5}$$
 (b) $\frac{1}{2} \times \frac{3}{4}$ (c) $\frac{1}{4} \times \frac{3}{5}$ (d) $\frac{1}{3} \times \frac{1}{3}$

(c)
$$\frac{1}{4} \times \frac{3}{5}$$

$$\frac{\text{(d)}}{3} \times \frac{1}{3}$$

(e)
$$\frac{5}{6} \times \frac{1}{2}$$

(e)
$$\frac{5}{6} \times \frac{1}{2}$$
 (f) $\frac{3}{4} \times \frac{1}{4}$ (g) $\frac{2}{3} \times \frac{1}{7}$ (h) $\frac{5}{8} \times \frac{1}{3}$

(g)
$$\frac{2}{3} \times \frac{1}{7}$$

(h)
$$\frac{5}{8} \times \frac{1}{3}$$

(i)
$$\frac{2}{3} \times \frac{1}{2}$$

$$(j)$$
 $\frac{1}{3} \times \frac{3}{4}$

(i)
$$\frac{2}{3} \times \frac{1}{2}$$
 (j) $\frac{1}{3} \times \frac{3}{4}$ (k) $\frac{3}{10} \times \frac{1}{2}$ (l) $\frac{2}{5} \times \frac{1}{4}$

(1)
$$\frac{2}{5} \times \frac{1}{4}$$

$$(m) \frac{2}{7} \times \frac{3}{4}$$

(m)
$$\frac{2}{7} \times \frac{3}{4}$$
 (n) $\frac{5}{7} \times \frac{1}{10}$ (o) $\frac{7}{12} \times \frac{2}{3}$ (p) $\frac{6}{7} \times \frac{2}{3}$

(o)
$$\frac{7}{12} \times \frac{2}{3}$$

(p)
$$\frac{6}{7} \times \frac{2}{3}$$

$$\stackrel{\text{(q)}}{=} \frac{6}{7} \times \frac{2}{9}$$

$$\frac{\text{(r)}}{10} \times \frac{5}{6}$$

(q)
$$\frac{6}{7} \times \frac{2}{9}$$
 (r) $\frac{3}{10} \times \frac{5}{6}$ (s) $\frac{6}{15} \times \frac{3}{4}$ (t) $\frac{3}{5} \times \frac{11}{15}$

$${(t)} \frac{3}{5} \times \frac{11}{15}$$

(u)
$$\frac{9}{20} \times \frac{10}{11}$$
 (v) $\frac{21}{30} \times \frac{2}{3}$ (w) $\frac{12}{25} \times \frac{5}{8}$ (x) $\frac{8}{9} \times \frac{3}{16}$

$$(v) \quad \frac{21}{30} \times \frac{2}{3}$$

$$\frac{(w)}{25} \times \frac{5}{8}$$

$$\frac{(x)}{9} \times \frac{3}{16}$$

Question 2: Work out the following multiplications Give your answers as simplified fractions. If any answers are top heavy fractions, write as mixed numbers.

(a)
$$\frac{1}{5} \times 3$$

(b)
$$7 \times \frac{1}{8}$$

(b)
$$7 \times \frac{1}{8}$$
 (c) $\frac{1}{10} \times 4$

(d)
$$30 \times \frac{1}{2}$$

(e)
$$8 \times \frac{3}{4}$$

(f)
$$\frac{2}{3} \times 12$$

(f)
$$\frac{2}{3} \times 12$$
 (g) $5 \times \frac{1}{3}$ (h) $8 \times \frac{2}{5}$

(h)
$$8 \times \frac{2}{5}$$

(i)
$$\frac{4}{5} \times 20$$

$$(j) \quad \frac{2}{7} \times 8$$

$$(k) \quad 8 \times \frac{5}{4}$$

(i)
$$\frac{4}{5} \times 20$$
 (j) $\frac{2}{7} \times 8$ (k) $8 \times \frac{5}{4}$ (l) $\frac{1}{5} \times 360$



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Question 3: Work out the following divisions. Give your answers as simplified fractions.

If any answers are top heavy fractions, write as mixed numbers.

(a)
$$1\frac{2}{3} \times \frac{1}{4}$$

(b)
$$\frac{2}{5} \times 1\frac{1}{4}$$

$$(c) \quad \frac{3}{4} \times 1 \frac{1}{2}$$

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

(e)
$$\frac{1}{4} \times 3\frac{1}{3}$$
 (f) $1\frac{2}{3} \times 1\frac{1}{4}$ (g) $4\frac{3}{5} \times 1\frac{2}{3}$ (h) $1\frac{2}{11} \times \frac{8}{9}$

(f)
$$1\frac{2}{3} \times 1\frac{1}{4}$$

(g)
$$4\frac{3}{5} \times 1\frac{2}{3}$$

(h)
$$1\frac{2}{11} \times \frac{8}{9}$$

(i)
$$2\frac{5}{6} \times 2\frac{1}{5}$$

(j)
$$1\frac{1}{9} \times 3\frac{3}{10}$$

(k)
$$3\frac{1}{8} \times 2\frac{1}{2}$$

(i)
$$2\frac{5}{6} \times 2\frac{1}{5}$$
 (j) $1\frac{1}{9} \times 3\frac{3}{10}$ (k) $3\frac{1}{8} \times 2\frac{1}{2}$ (l) $2\frac{6}{7} \times 3\frac{1}{5}$

Apply

Question 1: Work out

$$\frac{4}{5} \times 1\frac{1}{2} \times \frac{7}{8}$$

Question 2: Work out the missing number

Find the area of this rectangle. Question 3: Include suitable units.

$$\frac{9}{10} cm$$

$$\frac{1}{4} cm$$

Question 4: Alexis has a pet dog, Maxi.

Each day, Maxi eats $\frac{2}{3}$ of a can of dog food.

Alexis is buying dog food for one week.

How many cans of dog food should Alexis buy?





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Kelly spends $\frac{1}{4}$ of her savings on driving lessons. Question 5:

Kelly then spends $\frac{2}{3}$ of her remaining savings on a new car.

What fraction of her savings has Kelly spent?

Question 6: Work out

$$\frac{9}{10} + \left(\frac{5}{7}\right)^2$$

Question 7: A wall measures $3\frac{3}{4}m$ by $4\frac{1}{3}m$

Each can of paint cover 2.5m² and costs £5.50



Work out the cost of painting the wall.

Callum has completed his maths homework. Question 8: Can you spot any mistakes?

Work out

$$\frac{\frac{1}{3} \times \frac{1}{6}}{\frac{2}{18}} = \frac{1}{9}$$

Work out

$$\frac{1}{3} \times \frac{1}{6}$$

$$1 \frac{3}{10} \times 2 \frac{1}{2}$$

$$\frac{2}{18} = \frac{1}{9}$$

$$\frac{13}{10} \times \frac{5}{2} = \frac{75}{20}$$

$$60 \frac{15}{20}$$

 $60\frac{3}{4}$

Answers





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