

<b>Learning Objective:</b>	To be able to multiply fractions and mixed numbers	<b>Name:</b>	
		<b>Date:</b>	

**Do NOW Activity:**

- 1 Express 0.0092 in standard form
  
- 2 Expand and simplify  $(x + 3)(x - 3)$
  
- 3 Factorise  $12 - 24x$
  
- 4 Work out  $528 \div 16 =$
  
- 5 Increase £1200 by 15%

**PRIOR KNOWLEDGE CHECK:**

1. I am able to add and subtract fractions

**THE MAIN EVENT**

**WORKED EXAMPLE #1:**

Work out  $\frac{3}{4} \times \frac{5}{6}$

$$\frac{15}{24} = \frac{5}{8}$$

$$\frac{5}{8}$$

(Total for question 3 is 2 m.)

**PRACTICE #1:**

- |                                      |                                       |                                       |                                      |
|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|
| (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) $\frac{1}{3} \times \frac{1}{3}$ |
| (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) $\frac{5}{8} \times \frac{1}{3}$ |
| (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) $\frac{2}{5} \times \frac{1}{4}$ |
| (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) $\frac{6}{7} \times \frac{2}{3}$ |

**WORKED EXAMPLE #2:**

(b) Work out  $2\frac{1}{3} \times \frac{3}{5}$

Give your answer as a mixed number in its simplest form.

$$\frac{7}{3} \times \frac{3}{5} = \frac{7}{5} = 1\frac{2}{5}$$

**PRACTICE #2:**

Question 3: Work out the following divisions.

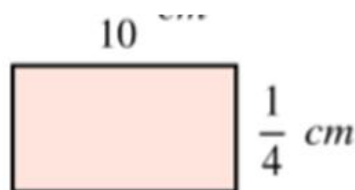
Give your answers as simplified fractions.

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)  $\frac{3}{4} \times 1\frac{1}{2}$       (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)  $1\frac{2}{11} \times \frac{8}{9}$

(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)  $2\frac{6}{7} \times 3\frac{1}{5}$

**PRACTICE #3:**Question 1: Find the area of this rectangle.  
Include suitable units.

Question 2: 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?

Question 3: Kelly spends  $\frac{1}{4}$  of her savings on driving lessons.Kelly then spends  $\frac{2}{3}$  of her remaining savings on a new car.

What fraction of her savings has Kelly spent?