

## Harder fractions

To find  $\frac{3}{4}$  of a number (like 20), you do it using 2 steps.

Step 1 :- Find  $\frac{1}{4}$  of 20 first ( $\div 4$ )  $\Rightarrow \frac{1}{4}$  of 20 =  $20 \div 4 = 5$

Step 2 :- Now find  $\frac{3}{4}$  of 20 by ( $\times 3$ )  $\Rightarrow \frac{3}{4}$  of 20 =  $5 \times 3 = 15$

Set the working down as follows :-

$$\frac{3}{4} \text{ of } 16 \Rightarrow (16 \div 4) \Rightarrow 4 \times 3 = 12$$

$$\frac{2}{5} \text{ of } 35 \Rightarrow (35 \div 5) \Rightarrow 7 \times 2 = 14$$

$$\frac{3}{7} \text{ of } 42 \Rightarrow (42 \div 7) \Rightarrow 6 \times 3 = 18$$

**Rule :-**

To multiply by a fraction like  $\frac{3}{4}$   
 $\Rightarrow$  "divide by the denominator" (4)  
 $\Rightarrow$  then "multiply by the numerator" (3)

### Exercise 4

1. **Without using a calculator** do the following :-

a  $\frac{2}{3}$  of 21 =  $(21 \div 3) \Rightarrow 7 \times 2 = \dots$

b  $\frac{3}{5}$  of 40 =  $(40 \div \dots) \Rightarrow \dots \times 3 = \dots$

c  $\frac{2}{3}$  of 24

d  $\frac{3}{4}$  of 28

f  $\frac{2}{7}$  of 49

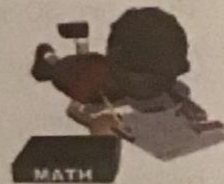
g  $\frac{2}{5}$  of 55

i  $\frac{4}{9}$  of 63

j  $\frac{7}{10}$  of 80

l  $\frac{5}{6}$  of 48

m  $\frac{2}{15}$  of 30



e  $\frac{4}{5}$  of 45

h  $\frac{5}{8}$  of 56

k  $\frac{9}{10}$  of 120

n  $\frac{9}{20}$  of 60.



2. a A small aeroplane carried 36 passengers.

$\frac{2}{3}$  of the passengers were asleep.

How many passengers were asleep?



b A cafe served 45 customers in an hour.  
 Three fifths of the customers ordered tea.

How many customers did **not** order tea?

