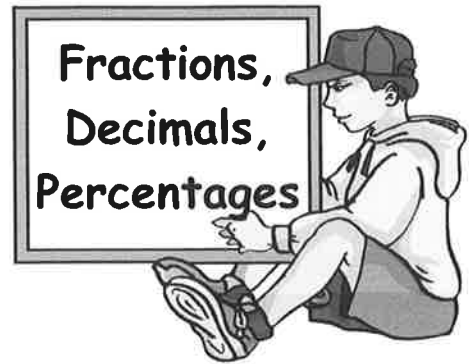


# CHAPTER 12

## Consolidation



1. Copy and complete :-

a  $\frac{1}{3} = \frac{?}{18}$

b  $\frac{4}{5} = \frac{28}{?}$

c  $\frac{19}{?} = \frac{38}{40}$

2. Write down **two** fractions equivalent to :-

a  $\frac{1}{7}$

b  $\frac{2}{9}$

c  $\frac{5}{11}$

3. Write each of these fractions in their **simplest** form :-

a  $\frac{7}{14}$

b  $\frac{16}{20}$

c  $\frac{75}{100}$

4. Find :-

a  $\frac{1}{8}$  of £24

b  $\frac{3}{5}$  of 200 m

c  $\frac{5}{9}$  of 72 kg.

5. In a secondary school, there are 180 new entrants into S1.

On the first day  $\frac{1}{3}$  of them turned up without a tie.

Of those with a tie, only  $\frac{3}{20}$  were wearing a school blazer.

How many of the original 180 were wearing a tie but not wearing a school blazer ?



6. Write each of the following as a **fraction** :-

a 27%

b 79%

c 8%

d 1%.

7. Write each of the following as a **decimal** :-

a 51%

b 32%

c 40%

d 6%.

8. Write each of the following as a **fraction** and as a **decimal** :-

a 15%

b 39%

c 7%

d 3%.

9. Write each **fraction** or **decimal** as a **percentage** :-

a  $\frac{63}{100}$

b 0.97

c  $\frac{5}{100}$

d 0.04.

10. Find :-

a 50% of 78p

b 25% of 24 km

c 50% of £19

d 10% of 6 kg.

11. Find :-

a 57% of 200 g

b 81% of £1500

c 17% of £420.



## Exercise 1



1. Reduce each percentage to a fraction in its **simplest form** (where possible) :-

- |       |       |       |       |
|-------|-------|-------|-------|
| a 45% | b 20% | c 12% | d 52% |
| e 4%  | f 28% | g 96% | h 85% |

2. Calculate :-

- |               |                |                  |
|---------------|----------------|------------------|
| a 50% of £12  | b 20% of £35   | c 10% of £73     |
| d 1% of 700 m | e 5% of 800 kg | f 100% of £19.50 |
| g 75% of £32  | h 75% of £3.20 | i 25% of 900 cm. |

3. Write each of the lists below in order (**smallest** first) :-

- a 37%,  $\frac{38}{100}$ , 0.4, 0.36      b 82%,  $\frac{4}{5}$ , 0.81,  $\frac{22}{27}$ , 0.825.



4. Jenny sat four exams.

She scored  $\frac{91}{100}$  in Maths,  $\frac{9}{10}$  in Biology,  $\frac{22}{24}$  in Chemistry and  $\frac{37}{40}$  in Physics.

What is Jenny's best and poorest subject ?



## Exercise 2



1. Work out these percentages by using their fractional equivalents :-

- |                              |                               |                             |
|------------------------------|-------------------------------|-----------------------------|
| a 10% of £80                 | b 20% of £90                  | c 40% of £150               |
| d 10% of £3                  | e 5% of £80                   | f 75% of £120               |
| g $33\frac{1}{3}\%$ of £18   | h $66\frac{2}{3}\%$ of £12    | i 25% of £280               |
| j 30% of £17                 | k 20% of £550                 | l 60% of £200               |
| m $33\frac{1}{3}\%$ of £6.90 | n $66\frac{2}{3}\%$ of £12.60 | o 50% of £9                 |
| p 75% of £21                 | q 10% of £1900                | r 5% of £1900               |
| s 1% of £8000                | t 2% of £8000                 | u 3% of £8000               |
| v $33\frac{1}{3}\%$ of £6300 | w 5% of £600                  | x $2\frac{1}{2}\%$ of £500. |

## Exercise 3



1. A school has 850 pupils. 10% of the pupils come to school on school buses.

How many pupils use the buses ?



2.



Two hundred and forty carrots were planted in a garden.  
20% of them were soon eaten by rabbits.

How many carrots were eaten ?

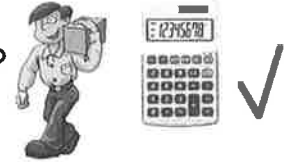
3. John paid a  $33\frac{1}{3}\%$  deposit on a £12600 car.  
How much money did he still have to pay ?



4.  $12\frac{1}{2}\%$  OFF!

The price tag on a skirt reads £80.  
It also carries a  $12\frac{1}{2}\%$  discount label.  
How much will the skirt cost with the reduction ?

5. A delivery man is set to receive a 7% pay rise.  
If his pay just now is £428 per week, what will his new pay be ?



6. My car cost £9500 new.  
After 5 years it had lost 82% of its value.  
How much was my car worth after those 5 years ?

### Revision Exercise



1. What fraction of this shape is coloured black ?

2. Write down TWO fractions equivalent to :-

a  $\frac{1}{4}$

b  $\frac{1}{9}$

c  $\frac{2}{7}$

d  $\frac{5}{13}$

3. Write these as fractions in simplest form :-

a  $\frac{32}{48}$

b 15%.

4. Write each fraction or decimal as a percentage :-

a  $\frac{18}{50}$

b 0.67

c  $\frac{3}{10}$

d 0.4.

5. Find :-

a  $\frac{3}{5}$  of £12.50

b  $\frac{7}{9}$  of 63 km

c 40% of 85 euros

d  $33\frac{1}{3}\%$  of £54

e  $66\frac{2}{3}\%$  of 12p

f  $12\frac{1}{2}\%$  of 56 kg.

6. Write these fractions as percentages :-

a  $\frac{7}{20}$

b  $\frac{3}{25}$

c  $\frac{30}{40}$

d  $\frac{7}{8}$ .

7. Calculate :-

a 46% of 2300 kg    b 2.5% of £8.

8. Write these in order, smallest first :-  $\frac{4}{11}$ , 0.39, 38%, 0.4.

