



1. A school has 420 pupils. 10% of the pupils are on a trip.
How many pupils are there on the trip?



2.  Five hundred and twenty trees are planted in a town.
20% of them are planted in a park.
How many trees are planted in the park?

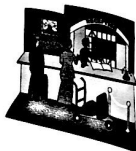
3. A recipe requires 680 g of flour.
25% of the flour is self-raising.
How much of the flour is self-raising?




4.  The Cat and Dog home have 114 animals. $33\frac{1}{3}\%$ are cats.
How many cats are there?

5. a Abbie had £220. She spent 25% on a weekend spa break.
How much did Abbie pay for her break?


- b Ellie weighed 85 kilograms.
She went to a health resort for a week and lost 20% of her weight.
(i) How many kilograms did she lose?
(ii) How much does she weigh after her visit to the health resort?



- c  Dara paid a 75% deposit on a £380 mountain bike.
How much was his deposit?

- d Arnie does 150 sit-ups every day.
He does 60% in the morning and the rest at night.
(i) How many sit-ups does he do in the morning?
(ii) What percentage of the sit-ups does he do at night?



- e  75% of the animals in a farm yard are chickens.
If there are 96 animals in the yard, how many are not chickens?

6. a The price tag on a jacket reads £60. It also carries a $33\frac{1}{3}\%$ discount label.
How much will the jacket now cost?

- b Gary received a 5% discount on his £1800 car. How much did Gary pay for his car?

7. Zeus Clothing is offering a $12\frac{1}{2}\%$ discount on all items.

- How much will it cost for :- a a coat priced £120 b a watch costing £48?

You may use a calculator for questions 8 - 12.


8. a A bank charges 14% for a £6400 car loan.
How much did the bank charge for the loan?



$$\frac{14}{100} \times 6400$$

$$= 14 \div 100 \times 6400$$




- b  Only 55% of bugs are killed by a bug spray.
If there were 8600 bugs, how many were killed?

- c Hayley's council tax last year was £960. This year there is a 7% increase.
How much is the increase?

- d Last month a house was valued at £120 000.
This month the house is valued at 3.5% less.
How much less is the value of the house?




9.  The storm yesterday had winds of 60 mph.
The wind speed is expected to increase by 15% today.
What is the expected wind speed today?

10. a A bus service is to increase its Zone Card price by 11%.
How much will I pay for my £28 Zone Card after the increase?

- b A bus driver gets a pay rise of 6%.
How much will a bus driver earning £325 a week now earn?

- c Tyre pressure on a bus should be at 56 p.s.i. (pounds per square inch).
If the pressure drops by 25%, what would the p.s.i. be?





11. a  Avia offers a 17.5% discount on their hire cars.
How much would it cost to hire a car originally costing £124?

- b A garage has a car priced £12 800 for sale.
The Managers Special discount is 7.25%.
How much will the car cost with the special discount?

12. a A pick-up truck was given a 10% discount and was sold for £9000.
How much was the pick-up before the discount? (not £9900)!



- b  TravelCo gave a 5% discount and sold a week in Malta for £190.
How much was the holiday before the discount?

- c  After spending 75% of his savings on a trip, Ed still had £1000 left.
What was his original savings before the trip?

- d Ally had £2000 left of his lottery win after spending 80% of his money.
How much did he win on the lottery?

Remember - When using a calculator make sure you show all your working.

Example :- Find 17% of £1860.

$$\frac{17}{100} \times \text{£}1860 = (17 \div 100) \times \text{£}1860$$

$$= 316.2$$

$$= \text{£}316.20$$




Exercise 2


1. Find the following using a calculator :-

- a 13% of £1500
- b 72% of 520 km
- c 28% of £50.50
- d 81% of 420 ml
- e 22.5% of 120 kg
- f 33% of 480 mm
- g 79% of £60
- h 14% of 120 cm
- i 60% of 12000 km
- j 18% of 7 cm
- k $66\frac{2}{3}\%$ of 28.5 km
- l 23% of £0.25 million
- m 101% of £800
- n 125% of 150 km
- o 150% of £5.

2. a On red nose day, 24% of pupils at Clydebank High wore a red nose. If there were 1400 pupils, how many wore a red nose?

b 43% of 1600 people asked in a survey preferred cats rather than dogs. How many people in the survey preferred cats?

c  There were 5850 people using a ski slope yesterday. 32% of them had never been skiing before. How many had never been skiing before?

d  The cost of using the ski slope was £45 per day. A 12% discount was given yesterday. How much money was taken off the price yesterday?


e Salters Suits give a 37% discount on a £680 suit. How much would I have to pay for the suit?

f Jake weighed 87 kg and wanted to lose 8%. How much did Jake want to weigh?




3. a Zara, who weighed 70 kg, found that after training for a Marathon her weight had dropped by 13%.
 (i) By how much had Zara's weight dropped?
 (ii) How much does Zara weigh now?
- b Zara's last Marathon time was exactly 3 hours. She wanted to beat this time by at least 10%. What time did she want to achieve in this Marathon?



4. a  A shopkeeper sold his TIKTOK watches at £120 each. He decided to raise the price by 15%.
 (i) How much was the increase?
 (ii) How much does the watch now cost?
- b Leather watch straps cost £18 each. What would be the cost if the price was reduced by 11%?

5. a Peter poured 12 litres of juice into a large punch bowl for his Save The Children fundraising party. After the party there was only 8% of the juice left. How many millilitres had been drunk at the party?
- b Peter beat last year's total (£1850) by 18%. How much money did he raise this year?



6.  Shop A had a football strip priced at £70 but had a 12% discount sticker. Shop B had the strip marked £75 but with a 21% discount sticker. Which shop had the cheaper football strip? (Explain).

7. Two flats each cost £80000. A year later Flat 1 had an increased valuation at 12%. Flat 2 had its value decreased by 9%.
 a What profit will Flat 1 make on its property?
 b What is the difference between the two Flats' prices now?



8. Alice was given a £25 discount on a £250 outfit. What percentage discount was she given?