



## QT Percentages

1. Work out 10% of £83.00

$$10\% = \underline{\underline{£8.30}}$$

2. Find 23% of £170

$$10\% = 17$$

$$20\% = \underline{34}$$

$$1\% = 1.70$$

$$3\% = \underline{5.10}$$

$$\begin{array}{r} 170 \\ \times 3 \\ \hline 510 \end{array}$$

$$23\% = 34.00 +$$

$$5.10 +$$

$$\underline{\underline{£39.10}}$$

3. Work out 45% of 1200

$$10\% = 120$$

$$40\% = \underline{480}$$

$$5\% = \underline{60}$$

$$45\% = 480 +$$

$$\underline{\underline{60}}$$

4. Calculate 135% of 140

$$10\% = 14$$

$$5\% = 7$$

$$100\% = 140$$

$$30\% = 42$$

$$5\% = 7$$

$$\underline{\underline{189}}$$

$$\begin{array}{r} 14 \\ \times 3 \\ \hline 42 \end{array}$$

5. Which is bigger? 25% of 80 or 30% of 90

$$10\% = 8$$

$$20\% = 16$$

$$5\% = 4$$

$$25\% = 16 +$$

$$\underline{\underline{20}}$$

$$10\% = 9$$

$$30\% = \underline{\underline{27}}$$

$$30\% \text{ of } 90$$

is bigger.



6. Which is greater? 30% of 108 or 32% of 96

$$\begin{array}{r} 10\% = 10.8 \\ 30\% = 108 \\ \times 3 \\ \hline 324 \end{array}$$

$$30\% = \underline{32.4}$$

$$\begin{array}{r} 10\% = 9.6 \\ 30\% = 96 \\ \times 3 \\ \hline 288 \end{array}$$

$$1\% = 0.96$$

$$2\% = 1.92$$

$$\begin{array}{r} 32\% = 28.80 + \\ 1.92 \\ \hline 30.72 \end{array}$$

30% of 108 is greater.

7. There are men and women at a concert.

There are 350 men.

30% of the people at the concert are female.

Calculate the total number of people at the concert.

$$\begin{array}{l} \frac{1}{10} ( 350 = 70\% ) \div 7 \\ 50 = 10\% \\ \hline 500 = 100\% \end{array} \times 10$$

8. George buys a motorbike for £5400.

He pays a deposit of 20%.

The rest of the money is paid in equal monthly instalments of £180.

How many monthly payments will George need to pay?

$$\begin{array}{r} 10\% = 540 \\ 20\% = 540 \\ \times 2 \\ \hline 1080 \end{array}$$

$$\begin{array}{r} 5400 - \\ 1080 \\ \hline 4320 \end{array}$$

$$\frac{4320}{180} = \frac{432}{18} = \frac{216}{9} = 24$$

24 months



9. Ahmed and Zahra did a test. The total for the test is 60 marks.

Ahmed scored 45% on the test.

Zahra achieved 28 out of 60 marks.

Which student got the highest mark?

You must show your working.

Ahmed

$$10\% = 6$$

$$40\% = 24$$

$$5\% = 3$$

$$45\% = \underline{27}$$

$$\text{Zahra} = 28 \text{ marks}$$

Zahra achieved ~~the~~ highest marks.

10. Sara buys a jacket in a shop sale. The normal price of the jacket is £66.60, although the price is reduced by 25% in the sale. Calculate the sale price of the jacket.

$$10\% = 6.66$$

$$\begin{array}{r} 20\% = 6.66 \\ \times 2 \\ \hline 13.32 \end{array}$$

$$5\% = 3.33$$

$$\begin{array}{r} 25\% = 13.32 + \\ \quad 3.33 \\ \hline 16.65 \end{array}$$

$$\begin{array}{r} 66.60 - \\ \quad 16.65 \\ \hline 49.95 \end{array}$$

Sale Price £49.95

11. Simon invests £600 for 3 years in a bank account. The account pays simple interest at a rate of 3% per year. Work out the total amount of interest Simon receives at the end of 3 years.

$$1\% = 6$$

$$3\% = 18$$

$$\begin{array}{r} 18 \\ \times 3 \\ \hline 54 \end{array}$$

£54 interest



12. Harriet wants to buy a new electric scooter. The scooter shop and shoppingforscooters.co.uk both have special offers.

The scooter shop offers 5% discount from the normal price of £399. Free delivery.

shoppingforscooters.co.uk offers 10% discount from the normal price of £399. There is an additional cost of £12 for delivery.

Which option should Harriet choose?

|              |               |
|--------------|---------------|
| 10% = 39.90  | 559.co.uk     |
| 5% = 19.95   | 10% = 39.90   |
| Scooter shop | 399.00 -      |
|              | 39.90 -       |
|              | <hr/>         |
|              | 359.10 +      |
|              | 12.00 +       |
|              | <hr/>         |
|              | <u>371.10</u> |