



Added Value Unit Revision (non calculator)

Use of whole number percentages



1. At a comedy show 9% of the audience buy a programme.
If 1500 attend the show, how many buy a programme?
2. A travel firm offers a discount of 40% off the full price of package holiday.
The full price of the package holiday is £760.

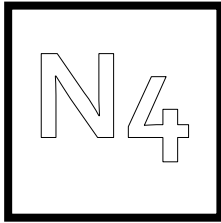
How much is the discount?
3. A salesperson is paid commission of 15% of her weekly sales.

How much will her commission be in a week when her sales total £800?
4. A bottle of iodine solution contains 7% iodine by volume.

What volume of iodine is there in a 500ml bottle?
5. A metal alloy contains 60% pure gold.

How much gold is there in 270g of the alloy?
6. A hotel in Glasgow offers 30% off the full price of a weekend break.

How much is this saving if the full price of a weekend break is £700.



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Calculation of the mean of a data set



1. Robin buys seven shirts in a charity shop.
The shirts cost:

£5, £3, £4, £3, £2, £6, £4.

Calculate the mean cost of these seven shirts.
Round your answer to 2 decimal places.

2. Jackie is flying a glider plane as part of a school project.

She launched the plane six times and the flight distances are shown below.

17m, 9m, 16m, 14m, 16m, 13m.

Calculate the mean flight distance.
Round your answer to 2 decimal places.

3. The weights of six 3 week old piglets (in pounds) are listed below.

11, 12, 10, 9, 8, 9.

Calculate the mean weight.
Round your answer to 2 decimal places.

4. The weights of seven new born babies in pounds are listed below.

6, 9, 7, 8, 6, 7, 4.

Calculate the mean weight.
Round your answer to 2 decimal places.



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Calculating a non-unitary fraction of a quantity



1. A research project looking at the different uses of computers found that on average $\frac{2}{5}$ of the time is spent communicating with others. John notes that he has spent 640 hours on his computer since he first bought it.

How much of this time would you expect him to have been communicating with others?

2. A sample of air was taken in a food factory. The sample of air was found to be $\frac{4}{5}$ nitrogen by volume. The volume of air in the factory is 150 cubic metres.

How many cubic metres of nitrogen are in the factory?

3. In a school of 1800 pupils, two thirds have a healthy lunch.

How many pupils have a healthy lunch?

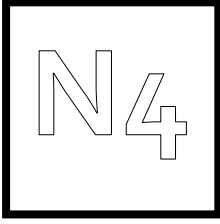
4. A cinema has 730 seats.

On Monday night, the cinema was $\frac{3}{5}$ full.

How many people were in the cinema on Monday night?

5. Paul is a diver. In his diver's cylinder, $\frac{3}{4}$ of the breathing gas mix is nitrogen. The tank contains 1600 litres of the breathing gas mix.

How many litres of Nitrogen are in the cylinder?



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Adding two decimal numbers and then subtracting from the result



1. Alan works painting road markings.
He marks 1.25 km of a road in the morning and 1.9 km in the afternoon.
Each day he has a target to mark 2.5 km of road.

How far did he go over this target?
2. Suzanne is a builder.
On Monday she plans to use 3.5 tonnes of sand and on Tuesday she plans to use 3.65 tonnes of sand.
If she has 5.8 tonnes of sand at the start of the week, how much more sand does she require?
3. To make purple paint, a painter mixes 2.75 litres of blue paint with 2.5 litres of red paint.
The painter uses 4.2 litres of this purple paint.

How much paint is left unused?
4. Big Bang Beanz make baked beans.
In the first week of production they make 2.3 tonnes of beans and in the second week 4.65 tonnes.
If a supermarket buys 5.4 tonnes of these beans, what is the weight of beans left to be sold?
5. Connor makes tea for tea break. He puts 3.65 litres in the first pot and 1.8 litres in the second pot.
During tea break 4.2 litres of tea are used.

How much tea is left unused?



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Multiplying a decimal number by a whole number



1. The weight of one car is 1.73 tonnes.

What is the weight of 5 identical cars?
2. A bookcase is 0.853 metres wide.

What is the width of 6 of these bookcases placed side by side?
3. If one T-shirt costs £15.95, how much will it cost to buy 7 of these T-shirts?
4. The weight of one car is 2.08 tonnes.

What is the weight of 9 identical cars?
5. A bookcase is 1.125 metres wide.

What is the width of 6 of these bookcases placed side by side?
6. If one T-shirt costs £14.89, how much will it cost to buy 7 of these T-shirts?