



## Percentage increase

~~~ Menu ~~~

**Starters:** Pate (£3.50), Soup (£3), Melon (£2)

**Main meals:** Fish and Chips (£5), Lasagne (£7.50),  
Vegetable Chilli (£5), Roast Lamb (£8), Roast Beef (£8)  
All main meals come with vegetables and chips, roast or mashed potatoes.

**Sweets:** Apple Pie (£3.50), Cheesecake (£4), Ice cream (£2)

**Drinks:** Tea (£1.50), Coffee (£2), Orange Juice (£1.50)

(10% service charge added to all bills)

Working out the cost of a meal from the menu above will only give you the basic price. You have to use percentages to find the **service charge**. Adding the two bits together gives the total cost.

### Example

If you chose the soup, roast lamb, apple pie and tea, then your basic meal price would be £16 ... but what would your total bill be? You need to do a **percentage increase** to find the answer.

First find **10% of £16** as this is the service charge. Then add the service charge to the basic meal price: 10% of £16 can be found by finding  $\frac{1}{10}$  of £16, so divide it by 10:

$$\pounds 16 \div 10 = \pounds 1.60$$

So the total cost of the meal is:

$$\pounds 16 + \pounds 1.60 = \pounds 17.60$$

Here's another example using a different percentage:

### Example

An antique jug is now worth 25% more than when it was first bought. The original price was £40. How much is it worth now?

You need to find the increase then add it to the original amount. We often use the term '**original amount**' when talking about percentage increase and decrease.

First find 25%. That is the same as finding  $\frac{1}{4}$  so divide by 4.

$$\pounds 40 \div 4 = \pounds 10$$

Now add this to the original amount:

$$\pounds 40 + \pounds 10 = \pounds 50$$

The jug is now worth **£50**.