Estimating by rounding

By rounding numbers we can get a rough idea or an **estimate**. An estimate might be a little **more** or a little **less** than the actual amount.

By carrying out an estimate we can check that the answers to problems are sensible.

If you were buying 9 identical shirts for the school's sports team that cost **£7.80** each, to get a rough idea of the total cost you could round up **£7.80** to **£8.00**. You could also round up **9** shirts to **10** shirts.

Your calculation would then be:
10 × £8.00 = £80.00

The **actual** cost would be
9 × £7.80 = £70.20

Notice that the actual cost of **£70.20** is a little **less** than our **£80.00** estimate. This is because we rounded **up**.

When using a calculator it's a good idea to **estimate** the answer first in case you make keying errors.

Example

To estimate the cost of 11 pens at **95p** each, you could round down **11** to **10** pens and round up **95p** to **£1.00**

The estimated cost would then be:
10 × £1.00 = £10.00