Different calculators will show answers in standard form in different ways. For example:

\[2.5 \times 10^6\] might look like this: 2.5E6 or this: 2.5\times10^6

You should **ALWAYS** write your answers in the form \[2.5 \times 10^6\] (2.5E6 means something **completely different**). So you need to **understand** what the display on your own calculator means.

### 1) The Calculator’s Scientific Mode

This mode **gives all numbers in standard form** to a specified number of sig fig. To get into this mode, press **MODE** and select **SCI** from one of the menus you get.

It’ll ask you for the number of sig figs to display, something like this: **SCI 0-9?**

So if you choose 4, all your answers will be displayed to 4 sig fig.

**EXAMPLE:** 565 ÷ 3 would give 188.3333333 in normal mode, ...
or 188.3 in 4 sig fig mode.

### 2) What is 146.3 million in standard form?

The two favourite wrong answers for this are:

1) \(146.3 \times 10^6\) — which is kind of right but it’s not in **STANDARD FORM** because 146.3 is not between 1 and 10 (i.e. \(1 < A < 10\)) has not been done

2) \(1.463 \times 10^8\) — this one **is** in standard form but it’s not big enough.

This is a very typical Exam question, which **too many people get wrong**.

**Take your time** and **do it in two stages** like this: **ANSWER:** 146.3 million = 146\,300\,000 = \(1.463 \times 10^8\)

### 3) Remember, \(10^5\) means \(1 \times 10^5\)

To enter \(10^5\) into the calculator you must remember it’s actually \(1 \times 10^5\) and press

![1 EXP 5]

**EXAMPLE:** A nanometre is \(10^{-9}\) m. How many nanometres are there in 0.35 m?

**ANSWER:** 0.35 ÷ (1 \times 10^{-9}), so press \(0.35 + 1 \text{ EXP } (-) 9 = \) = \(3.5 \times 10^8\).