**Very large numbers**

An Astronomical Unit is the mean distance of the earth from the sun as defined in 1938. The current value is 149,597,871 km or 92,955,907 miles.

A light Year is the distance travelled by light in a vacuum in one tropical year, that is 9,460,528,405,723 km or 5,878,499,814,452 miles.

A Parsec is the distance at which an angle of one second of an arc will represent the distance of the earth from the sun, that is 206,264.806 astronomical units, 3.2616 light years or 30,856,776,323,306 km (19,173,511,656,416 miles).

The temperature at the centre of the Sun is 15,396,765°C.

Pluto is 5,913,514,287 km from the Sun.

The diameter of the Earth is 12,756.2726 km (7926.5966 miles).

The circumference of the Earth is 40,075.012 km (24,902.138 miles).

**Very small numbers**

The lowest temperature ever recorded was 0.000,000,000,028,419,043°K.

The smallest hole ever measured had a diameter of 0.000,000,316 mm.

The smallest protophyte, Micromonas Pusilla, is only 0.000,031,496 cm across at the widest point.

The smallest virus known to man is tobacco necrosis, and measures just 0.000,000,0017 m.

Fingernails grow at a rate of 0.000,000,000,029,293 mph.

Toenails grow at 0.000,000,000,007,323 mph.

Hair grows at 0.000,000,000,170,877 mph.

**Questions**

* Can you round to two significant figures?
* Can you round to three significant figures?
* Can you write these numbers in standard form?