1. Re-write the following, either in standard form or changing standard form to normal numbers.
   1. Mercury is 694000000 km from the sun.
   2. The Sahara Desert covers 8600000 km2.
   3. The Earth is approximately 4.5 × 109 yrs old.
   4. The average depth of the Atlantic is 3.7 × 103.
   5. The charge on an electron is 1.6 × 10-19.
   6. In Chemistry, Avogadro’s constant is 6.033 × 1023.
   7. From Washington to Tokyo is 6763 miles.
   8. The radius of the nucleus of an atom is

0.0000000000003 cm

1. Find the value of the following, giving your answers in standard

form.

* 1. 46 × 4.2 × 5000
  2. 0.2 × 0.3 × 0.5 × 0.1
  3. 5000 ÷ 0.02
  4. 62000 ÷ 0.31

1. Which is greater, 4.62 ×1012 or 1.04 × 1013, and by how much?
2. Which is smaller, 3.2 × 10-8 or 1.3 × 10-9, and by how much?
3. One atomic mass unit is equivalent to 1.661 × 10-27 kg. What are two atomic mass units equivalent to? (in standard form)
4. Tony used his calculator and from the display he thought that the answer was **4.510**.

William said that this was the number 45.

Susan said it was 4.5 000 000 000.

Joseph said it was 45 000 000 000.

Who was correct? Explain your answer.

1. a) p = 3.7 × 10-4.

Write p as an ordinary number

1. Work out each of the following. Give your answers in standard form.

i) 5.2 × 104 + 9.6 × 105

* 1. 

1. The distance from the planet Earth to Kronos is

35 000 000 000 000 000 miles.

* 1. Write this number in Standard form.
  2. Light travels at the speed of 5.9 × 1012 miles per year.

How many years will it take light to travel from Kondos to Earth? Give your answer to a reasonable degree of accuracy.