**With these questions be prepared to say how you got your answers. Use a calculator if you need to.**

**1.** Is 100 000 seconds more or less than one whole day?

How did you work this out?

Write down three things that would take you less than half a day, but more than a tenth of a day.

**2.** Which of these could you do in 1 000 000 seconds or less?

   a)  have a week's holiday
   b)  run a 10 Km race
   c)  have a 20 day cruise
   d)  swim 100 lengths of your local swimming pool
   e)  walk from Manchester to London.

How did you decide?

**3.** If you wanted to transport 1 000 000 marbles, all at the same time, would you need

**I'd need jolly big muscles!**

   a)  a paper bag
   b)  a bucket
   c)  a shopping trolley
   d)  a lorry
   e)  a large aeroplane?

How did you decide?

**4.** How many one penny coins would you need to reach 1Km when placed side by side?

Explain how you worked it out?

**5.** How many one penny coins would you need to reach from the Earth to the Moon (400 000 Km) when placed side by side?

Explain how you worked it out.

1. More.  1 day = 86 400 seconds.
2. a)  b)  d)  (given a good swimmer)  e) (given a good walker)
   because  1 000 000 seconds = 11.57 days
3. Assume marbles are roughly 1cm diameter, 1 000 000 marbles is a cubic metre.
   Therefore lorry needed.
4. 50 000       1 coin is 2cm diameter
5. 50 000 x 400 000  =  20 000 000 000