

4 Set 1 : Start Of Term Fun...

Some of these are **decidedly tricky**, but see what you can do; do NOT get into a flap if you can't do some of them. I want you to concentrate on layout on the page and the structuring of your argument. Make sure it is clear to me what you are doing.

1. You have as many 1p, 2p and 3p stamps as you need. In how many ways can I make up a letter of:
 - (a) 3p? (The answer is three.)
 - (b) 7p?
 - (c) 10p?
2. In McDonalds what is the largest number of Chicken McNuggets which you CANNOT buy? They come in boxes of 6, 9 and 20.
3. One painter can paint a fence in ten minutes. Another painter can paint the same fence in six minutes. How long would it take both painters to do the job if they work together? Think carefully – the answer is not eight minutes or four minutes! (We will come back to these types of questions in class.)
4. How many whole numbers from 1 to 6000 (inclusive) are not divisible by 2, 3 or 5?
5. The Dwarfs in the Land-under-the-Mountain have just adopted a completely decimal currency system based on the Pippin, with gold coins to the value of 1 Pippin, 10 Pippins, 100 Pippins and 1000 Pippins. In how many ways is it possible for a Dwarf to pay, in exact coinage, a bill of 1997 Pippins? [This is very tough!]