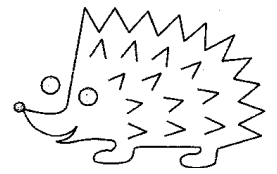


The 6801 Puzzle 2



Hedgehog Mathematical Sheets

The 1089 puzzle was popular in Victorian times and may have been invented by Lewis Carroll (yes, that one!). Here is a version he wrote in about 1890 that uses money. This is much harder because at the time UK coinage was not decimal; British currency only became decimal in 1971. There were 12 pence in a shilling and 20 shillings in a pound.

We start with a value in pounds, shillings and pence; as before first and last need to differ by at least two and also the number of pounds needs to be less than twelve.

For example, £9 11s 6d would be nine pounds, eleven shillings and sixpence. Reversed it is £6 11s 9d. (*d* comes from Roman denarius coin)

My value is £__ __s __d My reversed value is £__ __s __d

Now subtract the larger from the smaller; remember the pence (d) column goes up to 11 and the shillings column up to 19.

-	£	s	d		£	s	d			

+ reversed

As before, take your answer, reverse it and add together.

What do you find? My answer is £__ __s __d

Try it again with a different starting value:

My value is £__ __s __d My reversed value is £__ __s __d

-	£	s	d		£	s	d			

+ reversed

What do you find? My answer is £__ __s __d

What do you notice? What is happening? Why is it happening?
