

### Some sorting questions

#### 1.....Put a number into each cell

	multiples of 2	not multiples of 2
multiples of 3		
not multiples of 3		

#### 2.....Put several numbers into each cell

	multiples of 2	not multiples of 2
multiples of 3		
not multiples of 3		

3.....Put a number into each cell. Try and use numbers you expect other people would use.

	multiples of 2	not multiples of 2
multiples of 3		
not multiples of 3		

4..... Put a number into each cell. Try and use numbers other people wouldn't think of.

	multiples of 2	not multiples of 2
multiples of 3		
not multiples of 3		

5..... Put a number into each cell. Oh dear! Can you explain what the problem is? http://nrich.maths.org/13212 © University of Cambridge



## **Carroll Diagrams Follow-up**

	multiples of 2	not multiples of 2
multiples of 4		
not multiples of 4		

6.....Can you think of other categories where a cell cannot be filled?

7.....The labels have been left off this sorting diagram. Can you put each one in the correct place?

30	20
9	7

The labels are:

multiples of 5 multiples of 3 not multiples of 5 not multiples of 3

8.....What do you think the missing labels are?

		?			?	
greater than 20	33	24	60	32	35	49
not greater than 20	12	15	6	17	8	10

9.....What do you think the missing labels are? Can you find more than one possibility?

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# **Carroll Diagrams Follow-up**

	?	?
?	4	64
?	5	65

10.....How many of these numbers are in the wrong place?

	multiples of 3			not m	ultiples	s of 3
multiples of 4	12	48	18	40	10	8
not multiples of 4	9	16	3	27 35		5

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