

EYFS (Nursery and Reception)

It's Sam's birthday party. For the party he needs to make 5 party bags, each with 5 objects in. It could be party hats, party poppers, sweets or toys in the party bags. How many objects will Sam have to buy? Draw pictures of the party bags to show how many objects he will need.



KS1 (Year 1 & 2)

Annie and Ben are playing with a calculator. Annie puts her secret number into the calculator without showing Ben.

Annie then asks Ben, "What do you want to add?"

Ben tells Annie the number he wants to add. "I want to add four."

Annie presses the 'add' button and then the four button. The calculator now shows '4'. Annie gives the calculator to Ben.

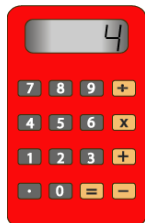
Ben presses the 'equals' button and the calculator gives the answer '10'.

What was Annie's secret number?

How do you know?

Next, Ben puts his secret number in. Annie wants to add six. When Annie pushes the 'equals' button, the calculator gives the answer '14'.

What was Ben's secret number? How do you know?



LKS2 (Year 3 & 4)

Here is an old riddle. See if you can solve it. Remember you can solve it any way you'd like to!

As I was going to St. Ives, I met a man with seven wives. The seven wives had seven sacks and the seven sacks had seven cats. The seven cats had seven mice. Wives, sacks, cats, mice: how many were going to St. Ives?



How would the answer change if the number used in the riddle was 3? What about 10?

Can you make up your own number riddle?

UKS2 (Year 5 & 6)

Ram divided 15 pennies among four small bags.



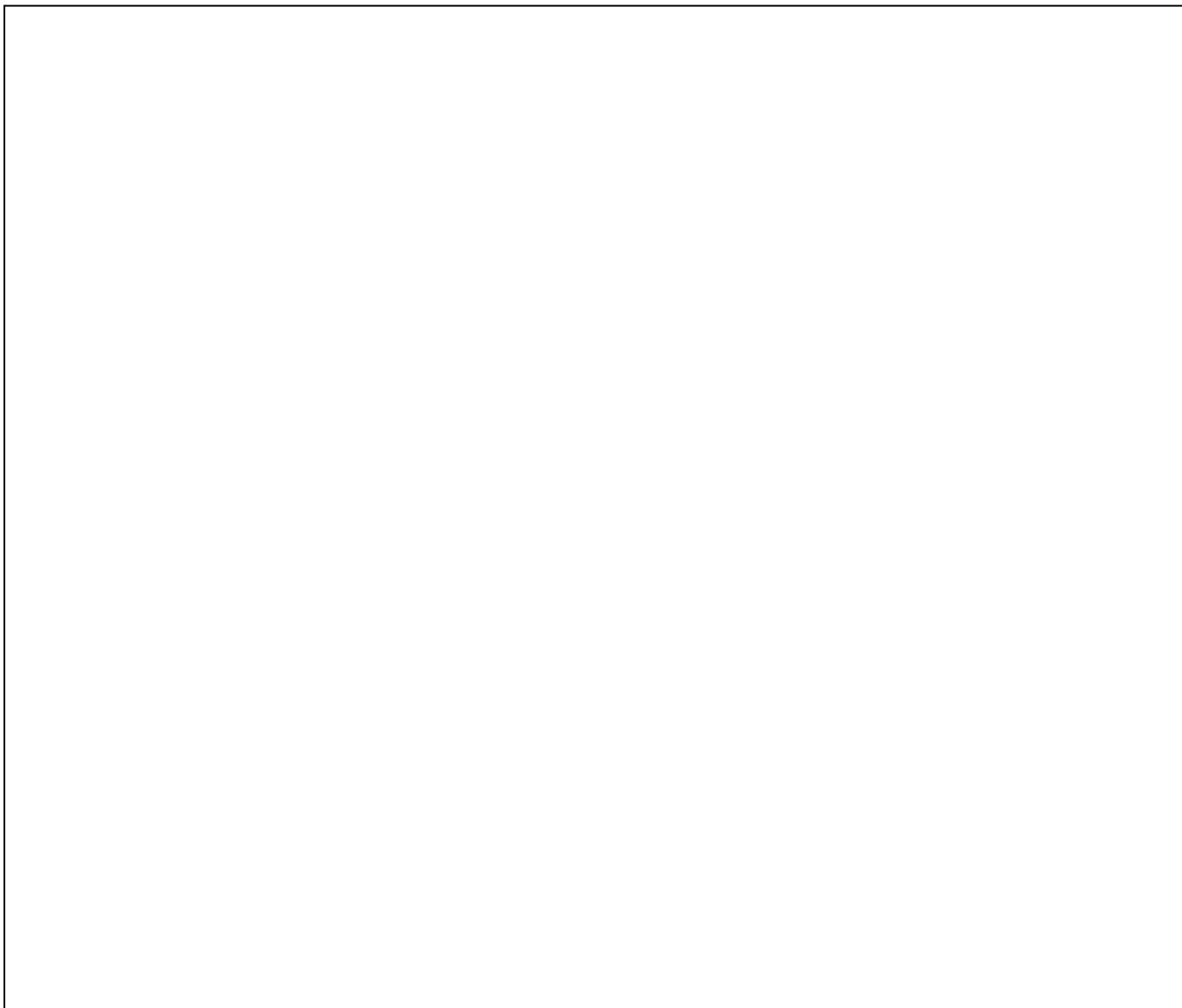
He labelled each bag with the number of pennies inside it.

He could then pay any sum of money from 1p to 15p without opening any bag.

How many pennies did Ram put in each bag?

Name: _____ Year: _____

Working out space:



Now explain how you solved the problem!

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Remember you can work the challenge out any way you would like to: draw pictures, use materials like buttons as counters, count in your head... Just make sure you show this on your solution paper!