

## Why do this problem?

This problem presents learners with a pleasant and familiar situation in which to explore aspects of the four operations. It also relies on finding all possibilities so can be used to focus on working systematically.

## Possible approach

It might be helpful just to have the image displayed, or for you to redraw a similar image, and for you to ask the questions orally rather than children having to read from the screen.

Begin with Rosie and suggest children work in pairs to find possible solutions. After a minute or so, you might like to take a couple of answers and then emphasise you'd like to know *all* the combinations that Rosie could have bought. In a mini-plenary invite learners to share different ways of going about finding them all and draw attention to those who have developed a system, for example starting with the most expensive sweet (a lollypop) and seeing what could be bought with that; then looking at the next most expensive (the Choco bar) and finding the combinations which could go with it etc. At this stage, you may also want to highlight some good ways of recording that children have come up with.

Once you have explained about the other four children, you could jot a reminder of how they each spent their 20p on the board and leave the class to explore possibilities this time. When you bring their ideas together, you may want to praise those who have developed systematic ways of working based on the earlier discussions and those who explain their reasoning clearly.

## Key questions

Could all the sweets be the same?

What else could Rosie have bought if she bought a lollypop/Choco bar/chew/mini egg?

How much do two of those cost? What about three of them? And four?

How do you know you have all the possibilities?

## Possible extension

Learners could investigate how other amounts of money perhaps between 10p and 20p, could be spent exactly.

## Possible support

It could be useful for children to have objects to represent the sweets, for example coloured counters.