



COIN COUNT





Rich Learning Task

Number

Coin Count

What's the point of this task?

Students need to recognise how the concepts of **twice** and **half** are related. If one amount is twice another, the second is half the first and vice-versa. So, in this problem, the number of 5 pence pieces must equal the number of 20 pence pieces. In addition, they must figure out that if there are half as many 20 pence pieces as 10 pence pieces, the number of 10 pence pieces has to be even. But since the number of 10 pence pieces is twice the number of 5 pence pieces, it will automatically be even. The task also provides students practice in adding money amounts.

Questions to facilitate the learning

Other questions that might be asked include:

- How many 10 pence pieces might there be? Why only those amounts?
- How does the number of 20 pence pieces compare to the number of 5 pence pieces? Why?
- Could the amount of money be of the form £[].[]5? Why or why not?

Curriculum connections

This activity relates to simple multiplication and division (doubling and taking half) as well as to the addition of money amounts.

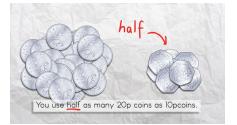
Scaffolding the learning

- Suppose there were three 5 pence pieces. How many 10 pence pieces? How many 20 pence pieces? What is that worth?
- Suppose there were four 5 pence pieces. How many 10 pence pieces? How many 20 pence pieces? What is that worth?
- Could you decide the number of 10 pence pieces or 20 pence pieces first?

Extending the learning

Students might change the rules for the coin relationships, e.g. there are three times as many 10 pence pieces as 20 pence pieces and half as many 10 pence pieces as 5 pence pieces, and try the problem again.





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Mathletic

Coin Count

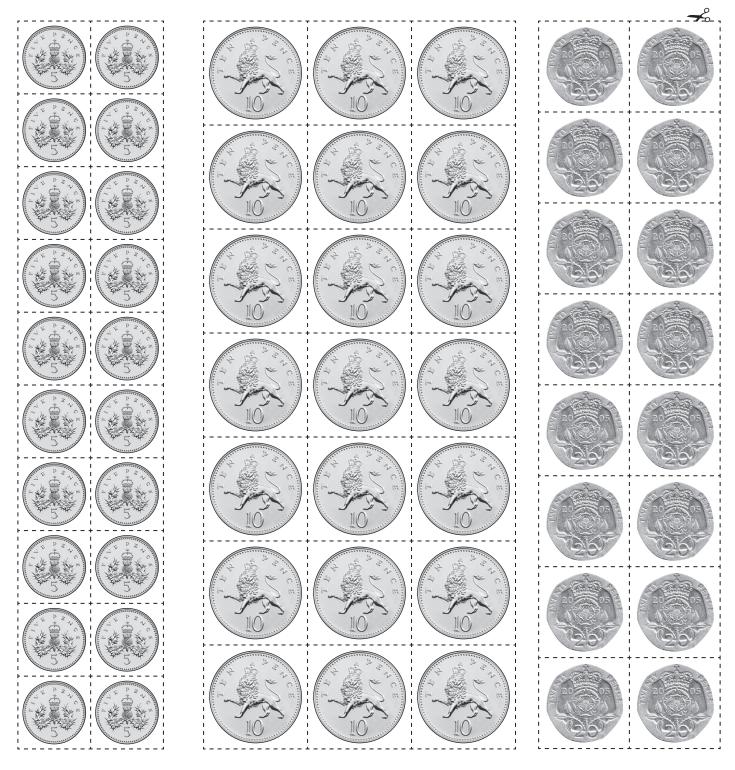
You pay for something.

You use twice as many 10 pence pieces as 5 pence pieces.

You use half as many 20 pence pieces as 10 pence pieces.

How much could it have cost?

How many answers can you come up with?



Ask your teacher for more coins if you need them.

