

## The Bat and Ball Puzzle

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A bat and a ball cost £1.10. The bat costs £1.00.

How much does the ball cost?

Many people will say 10 pence (or £0.10).

THIS IS WRONG!

If the ball did cost £0.10 then the bat would cost £0.90 more, as opposed to the £1.00 more given in the question.

Suppose the ball costs £ $x$ .

Then the bat cost £ $1 + x$ .

Then  $(1 + x) + x = 1.10$

$$1 + 2x = 1.10 \rightarrow x = \frac{1.1 - 1}{2} = 0.05$$

The ball costs £0.05 and the bat costs £1.05.