

### Problem

Amelia is a property developer and has seen an apartment for sale. It will cost her £115 000 to buy.

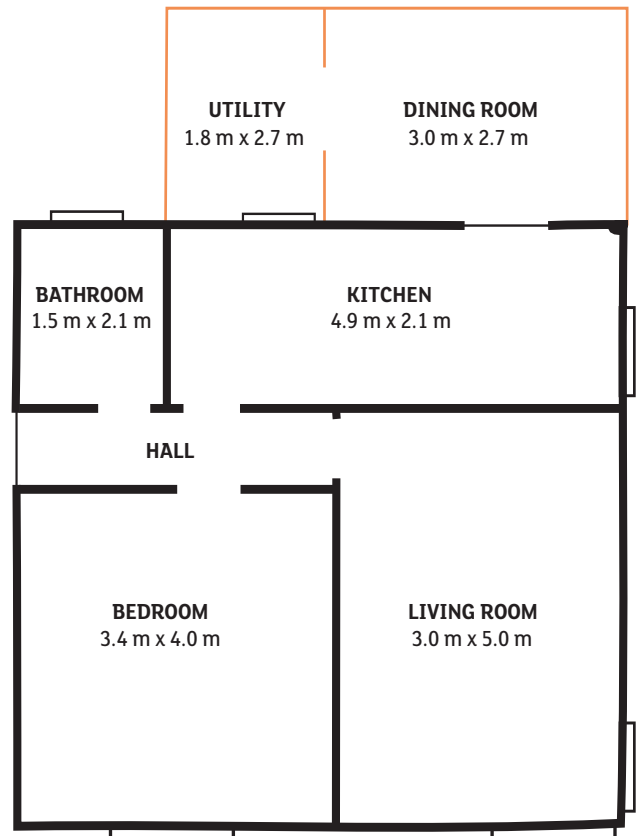
She is considering buying it and then building an extension, as this will increase the value of the apartment.

The plan for the apartment with the extension Amelia wants is shown.

Amelia has shown the plans to an estate agent who has told her that the apartment would be worth £145 000 if it had the extension.

She has been told that the extension will cost £1500 per square metre to build, but she knows from her job as a property developer that it is also wise to budget up to an additional 20% to allow for unexpected expenses.

Amelia will only buy the apartment if, after paying for the extension and selling it for £145 000, she can make a profit of between 6% and 8% on what it will cost her to buy.



Should Amelia buy the apartment?

