Understanding Present Value

Money today does <u>not</u> have the same value as money tomorrow, and we must <u>never</u> compare future income/consumption with current income/consumption without first **discounting**.

Not convinced that money today does not have the same value as money in the past?

Today £$_{2013}$1 buys you a couple of Mars Bars or a sack of potatoes. If you're lucky. However, one hundred years ago, £$_{1900}$ 1 would have paid for a week's accommodation in central London, which costs about £$_{2013}$1000 today. So yes, £1 today goes a lot less far than £1 in the past, and will go a lot further than £1 in the future. <u>Money loses value over time</u>.

How do we work out what £100 is worth tomorrow? We put into a savings account at the interest rate, which is the same as **multiplying** by (1 + r):

How do we work backwards, and **discount** future income? We do the reverse and **divide** by the interest rate, (1+ r):