

a)  
The market value of a house increases by 30%, before the market value then falls by 25%.  
What is the overall percentage change to the market value of the house?

How can we apply the first change?	To increase by 30%, multiply by 1.3
How can we then apply the second change?	To decrease by 25%, multiply by 0.75
Can this calculation be simplified?	$x \times 1.3 \times 0.75 = x \times 0.975$
What is the overall percentage change?	When multiplying by 0.975, this is equivalent to a decrease of 2.5%.

b)  
Over the space of two years, the price of a drink increases by 20%, and then increases by 10%.  
What is the overall percentage change on the price of the drink?

How can we apply the first change?	To increase by 20%, multiply by 1.2
How can we then apply the second change?	To increase by 10%, multiply by 1.1
Can this calculation be simplified?	
What is the overall percentage change?	

c)  
Over the space of two years, the share price of a company decreases by 5% one year, and then increases by 5% over the following year.  
What is the overall percentage change on the share price of the company?

How can we apply the first change?	To decrease by 5%, multiply by 0.95
How can we then apply the second change?	
Can this calculation be simplified?	
What is the overall percentage change?	

d)  
In the beginning of 2020, Chris got a new job.  
At the beginning of 2021, Chris received a pay rise of 12%.  
At the beginning of 2022, Chris received another pay rise of 12%.  
What is the overall percentage change in Chris' pay between 2020 and 2022?