

Mathematics

Growth and Decay. Downloadable Resource - Repeated percentage change

Mr. Thomas



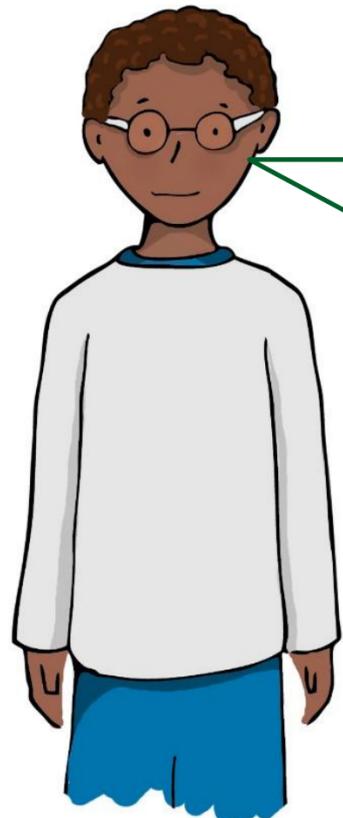
Try this



Yasmin buys a guitar for £80.

After a year, it has gone up in value by 10%.

After another year, it has gone down in value by 10%.



It increased in value, then decreased in value by the same amount. So now it's worth £80 again

I think it's worth more than £80

Can you justify both of their responses?



Connect

What would the value of £100 become if it grew by 5%, and then another 5%? Is this the same as growing by 10%?

What would the value of £500 become if it increased by 50%, and then decreased by 50%? Is it still £500?

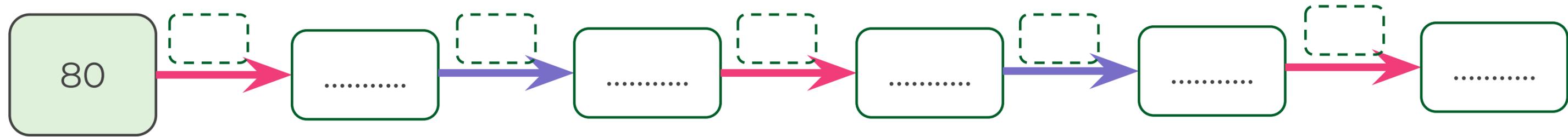


Independent Task

- 1) If a £5,400 investment grew 5%, followed by another 5%, how much would it be worth?
- 2) If a vintage car was worth £40,000, and increased in value by 1.4% a year for 3 years, how much would it be worth?
- 3) I bought a yo-yo in a shop for £1. It decreased by 13%. It was then sold on again for 35% increase on the price they bought it for. How much is it worth now?
- 4) If my house price increased by 7% per year for 5 years, what is the direct percentage multiplier for the original amount?



Explore



Fill in the blanks to make the final box:

10% 30% 50% 70% 90%

- a) As great as possible.
- b) As small as possible.
- c) As close to 80 as possible.

Increase by 

Decrease by 