

Gains and Losses

ACTIVITY

Leyton’s grandad gave him some South African gold coins for his birthday. One day, he read an article on South African currency in a newspaper.

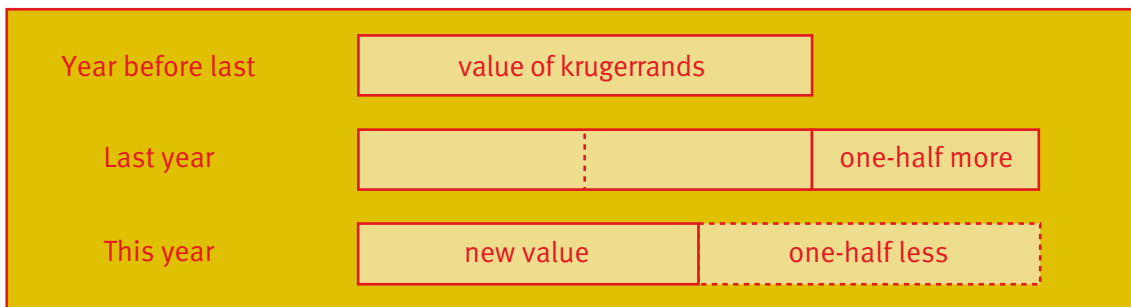
Krugerrands Fall

People holding on to krugerrands will be unhappy to learn that the coins are now worth half of last year’s value. “But people should not forget that, in the previous year, krugerrands increased in value by one-half,” said Mr Mint of Coin Valuers Limited. “So, really, they are worth the same now as they were 2 years ago.”

That doesn’t sound quite right to me!



Leyton drew a diagram to check the newspaper article.



- Is Leyton right in thinking that there is something wrong with Mr Mint’s logic?
 - By how much has the value of Leyton’s coins increased or decreased since the year before last?
- Leyton drew another diagram to show that if something increases by one-quarter and then decreases by one-quarter, the new value is not the same as the original value. Draw what you think Leyton’s diagram looked like.
- What happens to the value of something that:
 - increases by one-third and then decreases by one-third?
 - increases by one-fifth and then decreases by one-fifth?
 - increases by one-sixth and then decreases by one-sixth?
- Find a rule for these increases and decreases.
 - If something increases in value by 1 percent (one-hundredth) and then decreases by 1 percent, how much of its original value is it worth?