

Compound Interest

- In each example below find the amount owed at the end of the term
 - £3500 loan at 6% interest p.a. over 4 years
 - £12500 loan at 4% interest p.a. over 6 years
 - £1500 loan at 6.5% interest p.a. over 2 years
 - £3700 loan at 3.5% interest p.a. over 5 years
- A car is bought for £16500 and depreciates by 12% p.a. for the first two years. How much will it be worth at the end of the second year?
- A house increased in value by 3% p.a. for 3 years. It was bought for £75000. How much is it worth now?
 
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The number of tadpoles in a pond is 34714. The population of tadpoles drops by 15% per week. How many tadpoles would be left after 6 weeks?
- Calculate the value of a car when
 - the original value is £14000 and it drops 15% in the first two years and 11% in the third.
 - the original value is £11500 and it drops 12% in the year 1 and 9% in the next three years.
 - the original price is £6700 and it fell by 7% in the first three years and 6% in the next two.
- The amount of a drug in a hospital patients system decreases by 35% per hour. Initially 60mg of a drug were given to the patient.
 - How much would be left over after 3 hours?
 - The patient needs to maintain a minimum of 10mg. When will they need more?
- The length of a stalagmite increases by 1.5% per year. The current height is 65cm. How long will it takes the stalagmite to reach 70cm?
- (PP) There are 964 pupils on the roll of Aberleven High School. It is forecast that the roll will decrease by 15% per year. What will be the expected roll after 3 years? Give your answer to the nearest ten.
- (PP) Alistair buys an antique chair for £600. It is expected to increase in value at the rate of 4.5% each year. How much is it expected to be worth in 3 years?