

## Compound Interest

1. Find the interest (APR) on each of the following investments

	Initial investment	APR	Time (years)
a.	£400	3%	5 years
b.	£500	4%	3 years
c.	£2000	3.4%	2 years
d.	£7000	0.4%	6 years
e.	£850	3.2%	4 years

2. The value of a car decreases by 15% per annum. What will the value of a £20 000 after 5 years?

3. House prices are expected to rise by 4% in the each of the next 3 years. What will the value of a house, currently valued at £150 000, be worth in 3 years?

4. A new teacher pay deal included a 3% rise on salaries each year for the next 5 years. A full time primary teacher earns £41 412. How much will they earn a year in 5 years time?

5. A manufacturing company buys a new crusher every time the machine falls below 40% of it's original value.

They buy a new waste crusher at £80,000. The crusher will decrease at a rate of 20% per annum.

After how many years will they be purchase a new crusher?

6. A chocolate company aims to increase it's sales by 8% per annum. This year they sold one million bars of chocolate. How many bars to they aim to be selling each year in 3 years time.

7. Bank CJ offers an interest rate of 3% per annum in one of their accounts.

Bank AG offers an introductory rate of 4% for the first year and 2.5% per annum for each subsequent year.

a. How much interest be gained after 1 year in each bank if I invest £6 000?

b. Which bank will give most interest on the £6 000 in 4 years time?