## Essential Skills 29

The questions in this series of worksheets appear frequently.
These are the GIFTS you must take to succeed
Percentages: Appreciation and Depreciation


## Calculate:

1. The interest earned on $£ 3800$ at $4 \%$ p.a after 3 years.
2. The population of a village after 4 years if it started with 1500 and decreases by $6 \%$ yearly
3. The number of bacteria after 3 hours if 30 are present initially and are increasing by $42 \%$ per hour.
4. The value of a ring, initially costing $£ 799$, after 3 year depreciation at $8.2 \%$ per year.
5. The volume of a 750 ml jelly mould after 2 hours if decreasing by $5.6 \%$ per hour.
6. The school roll after 5 years if increasing by $8 \%$ per year from 630 initially.
7. The balance after 3 years when $£ 240$ is deposited with a $2.8 \%$ interest rate.
8. The sewage in a canal after 4 months if clearing removes $23 \%$ of the initial $238 \mathrm{mg} /$ litre per month.
9. The trade-in price of a car after 3 years. Bought for $£ 13500$, depreciating by $9 \%$ per year.
10. The value of a work of art, valued at $£ 23000$, after 9 years increasing by $12.5 \%$ per year.

## APPLYING QUESTION

The population of Airdrie is 39200


Motherwell has a population of 32500
If the population of Airdrie drops by $4 \%$ yearly whilst the Motherwell population rises by $5 \%$, how long will it take before Motherwell has a greater population than Airdrie?

