Fractions, Decimals & Percentages
(Calculations & Problems)

1.   (a)   A man invests £4500 in a Building Society at a simple interest rate of 4% per annum.

   How much will his investment be worth after 8 months?

(b)   In a sale, a shop offers a 12% discount on a table and four chairs normally priced at £1680.

   How much would you pay for the table and chairs in the sale?

(c)   Susan invests in a piece of antique jewellery. The piece cost her £3400.

   For the first two years the jewellery increases in value by 8·5% of its worth
   at the beginning of each year. In the third year it sees a slight loss in value of 2·4%.

   How much is Susan's jewellery worth at the end of this three year period?

(d)   A woman buys a car for £6700 and sells it for £4891 a year later.

   Calculate her percentage loss.

(e)   Stephen bought a car and spent a month fixing it up.

   When he sold it on he made a 32% profit.

   If he sold the car for £3696, how much did he originally pay for the car?

2.   A group of volunteers have been running a youth club for a number of years.

They ask the local council for a grant of £12 150 to
help run the club for the coming year.

(a)   The council decide to give the group $\frac{5}{9}$ of the money they have asked for.

   How much money will they receive?

(b)   Last year the group received a grant of £7 200 to help run the club.

   If this represented $\frac{5}{8}$ of what they actually asked for, how much did
   they ask for last year?

3.   The number of shoppers passing through the door of a large
department store during the month of October was 125 000.

In November the number of shoppers increased to 167 500.

If the same percentage increase in shoppers was expected from November to December
as occurred from October to November, how many shoppers could the store expect
to see through their doors in December?