1. Joseph invests £4500 in a bank that pays 6·4% interest per annum.
   If Joseph does not touch the money in the bank, how much interest will he have gained after 3 years?
   Give your answer to the nearest penny.

2. Jane bought a painting in an auction for £32 250.
   Unfortunately the painting depreciated in value by 7% each year.
   Calculate how much the painting was worth after 2 years.
   Give your answer to 3 significant figures.

3. **Non calculator**
   Last year (2008) a company made a profit of £1 000 000. This year (2009) it expects to increase its profit by 20% and by 2010 to have increased it by a further 25%.
   Calculate the profit the company expects to make in 2010.

4. A patient in hospital is given 200mg of a drug at 0900. 12% of the amount of the drug at the beginning of each hour is lost, through natural body processes, by the end of that hour.
   How many mg of the drug will be **lost** by 1200?

5. Holly buys an antique watch costing £1200. The watch appreciates in value by 3·7% per annum.
   How much will the watch be worth in 4 years time?
   Give your answer to the nearest pound.

6. A local council recycles 28 000 tonnes of glass each year. After a publicity campaign they expect to increase the amount of glass recycled by 12% each year.
   (a) How much glass do they expect to recycle in 3 years time?
   Give your answer correct to **3 significant figures**.

   (b) The council aim to double the amount of glass recycled in 6 years.
   If this rate is maintained, will the council meet their target?
   Give a reason for your answer.

7. **Non calculator**

   Arthur's new car cost him £15 000. The value of it will depreciate by 20% each year. How much will Arthur's car be worth when he trades it in for a new one in 2 years time?

8. Barry bought a house last year costing £115 000. This year it is valued at £110 400.
   (a) Calculate the percentage decrease in the value of the house.
   (b) If the value of the house continues to decrease at this rate what will the house be worth in a further 3 years time? Give your answer to 3 significant figures.

9. Marcus invested £3000 in a bank which paid 2·5% interest per year.
   (a) Calculate how much money Marcus would have in his account after 3 years.
   (b) How long would it take for Marcus' money to increase by 12%?

10. In 2007 a company made a profit of £45 000. Over the next three years its profit dropped by 3% each year due to increased manufacturing costs.
    Calculate, correct to 3 significant figures, the company's profit in 2010.

11. The value of an industrial machine is expected to decrease each year by 14·2% of its value at the beginning of the year.
    If it was valued at £15500 at the **beginning** of 2011, what will its expected value be at the **end** of 2013? **Give your answer correct to the nearest pound**.