1.   **[5 marks]**

In January 2007 the population of Canada was 32 million.
7 million of these Canadian people spoke French as their first language.

(a) Express 7 million as a percentage of 32 million.
    Give your answer correct to 1 decimal place.

.... %

(2)

Between January 2007 and January 2009 the population of Canada increased by 4%.

(b) Increase 32 million by 4%.
    Give your answer correct to the nearest million.

.... million

(3)

2.   **[5 marks]**

(a) Cheng invested 3500 dollars.
     At the end of one year, interest of 161 dollars was added to his account.

     Express 161 as a percentage of 3500

                                                        .... %
                                                                                          (2)

(b) Lian invested an amount of money at an interest rate of 5.2% per year.
     After one year, she received interest of 338 dollars.

     Work out the amount of money Lian invested.

                                                        .... dollars
                                                                                          (3)

3.   **[4 marks]**

Brett's weekly pay is $760
He spends $266 on rent.

(a) Express $266 as a percentage of $760

                                                        .... %
                                                                                          (2)

Kazia spends $204 a week on rent.
$204 is 30% of her weekly pay.

(b) Work out her weekly pay.

                                                        $ ....
                                                                                          (2)

(a) Dilip buys a painting for $675
Later, he sells it and makes a percentage profit of 12%.

Work out the price for which Dilip sells the painting.

$ ....
(3)

(b) Renuka sells her car.
She makes a loss of $2162
Her percentage loss is 23%.

Work out the price for which Renuka sells her car.

$ ....
(3)

(c) Lin bought a computer that had a value of $1500
At the end of each year, the value of her computer had depreciated by 40% of its value at the start of that year.

Calculate the value of her computer at the end of 3 years.

$ ....
(3)

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A clothes shop has a sale.

In the sale, normal prices are reduced by 12%
The normal price of a shirt is £30

(a) Work out the sale price of the shirt.

£...

(3)

The price of a coat is reduced by £9 in the sale.

(b) Work out the normal price of the coat.

£...

(3)

6. [3 marks]

Ying eats some yoghurt.

The yoghurt contains 192 mg of calcium.
This is 16% of the total amount of calcium that Ying should have each day.

Work out the total amount of calcium that Ying should have each day.

.... mg

7. [6 marks]

Pat drops a ball onto a wooden floor.
The ball bounces to a height which is 26% less than the height from which it is dropped.

(a) Pat drops the ball from a height of 85 cm.
    Calculate the height to which it first bounces.

.... cm

(3)

(b) Pat drops the ball from a different height.
    It first bounces to a height of 48.1 cm.
    Calculate the height from which he dropped it.

.... cm

(3)

The price of 1 kg of silver on 1st January 2010 was $607
By 1st January 2015, the price of 1 kg of silver had decreased by 9.4%

(a) Work out the price of 1 kg of silver on 1st January 2015.
Give your answer correct to the nearest dollar ($).

$...

(3)

Between 1st January 2010 and 1st January 2015, the price of 1 tonne of copper decreased by 20%

This was a decrease of $1320

(b) Work out the price of 1 tonne of copper on 1st January 2010.

$...

(3)

A mobile phone company makes a special offer.
Usually one minute of call time costs 5 cents.
For the special offer, this call time is increased by 20%.

(a) Calculate the call time which costs 5 cents during the special offer.
Give your answer in seconds.

.... seconds

(2)

(b) Calculate the cost per minute for the special offer.

.... cents

(2)

(c) Calculate the percentage decrease in the cost per minute for the special offer.

...........................%

(3)

Liam invests £8000 in a savings account for 4 years.
The savings account pays compound interest at a rate of

        4.5 % for the first year
        2.75 % for all subsequent years.

(a) Work out the value of Liam's investment at the end of 4 years.

£...
(3)

Max invests some money in a savings bond.
The savings bond pays interest at a rate of 2% per year.

At the end of the first year, his savings bond is worth £5763

(b) How much money did Max invest in the savings bond?

£...
(3)

George, Matthew and Isabelle invest money in a savings account, which pays compound interest of 3% p.a.

(a) George invested £4800.
Work out the total value of his investment after 5 years.

....
(3)

(b) Matthew invested £3400.
Work out the amount of interest that he earned after 4 years.

....
(3)

(c) Isabelle had earned £320 interest after 6 years.
Work out the amount of money that Isabelle invested.

....
(3)

Jothi bought a car.
Later, Jothi sold the car for £2125
He made a loss of 15%.
Work out the original price of the car.

£ ....

Naoby invests £6000 for 5 years.
The investment gets compound interest of x% per annum.

At the end of 5 years the investment is worth £8029.35

Work out the value of x.

....

14.   **[6 marks]**

Katy invests £2000 in a savings account for 3 years.

The account pays compound interest at an annual rate of

2.5% for the first year

x% for the second year

x% for the third year

There is a total amount of £2124.46 in the savings account at the end of 3 years.

(a) Work out the rate of interest in the second year.

....

(4)

Katy goes to work by train.

The cost of her weekly train ticket increases by 12.5% to £225

(b) Work out the cost of her weekly train ticket before this increase.

£...

(2)

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