1 - (0580/42_Summer_2020_Q1) - *Percentages, Ratio And Proportion, Simple And Compound Interest*

(a) **(i)** Divide $24 in the ratio 7 : 5.

$ .... , $ .... [2]

(ii) Write $24.60 as a fraction of $2870.
Give your answer in its lowest terms.

.... [2]

(iii) Write $1.92 as a percentage of $1.60 .

.... % [1]

(b) In a sale the original prices are reduced by 15%.

(i) Calculate the sale price of a book that has an original price of $12.

$ .... [2]

(ii) Calculate the original price of a jacket that has a sale price of $38.25 .

$ .... [2]

(c) (i) Dean invests $500 for 10 years at a rate of 1.7% per year simple interest.

Calculate the total interest earned during the 10 years.

$ .... [2]

(ii) Ollie invests $200 at a rate of 0.0035% **per day** compound interest.

Calculate the value of Ollie's investment at the end of 1 year.
[1 year = 365 days.]

$ .... [2]

(iii) Edna invests $500 at a rate of r% per year compound interest.
At the end of 6 years, the value of Edna's investment is $559.78 .

Find the value of r.

$r =$ .... [3]

2 - (0580/23_Winter_2021_Q5) - *Foreign Exchange*

Nina changes 153 euros into dollars when the exchange rate is $1 = 0.9$ euros.

Calculate the amount Nina receives.

$ .... [1]

3 - (0580/22_Winter_2018_Q9) - *Percentages*

There are 30 000 lions in Africa.
The number of lions in Africa decreases exponentially by 2% each year.

Find the number of lions in Africa after 6 years.
Give your answer correct to the nearest hundred.

.... [2]

4 - (0580/21_Summer_2021_Q12) - *Simple And Compound Interest*

The profit a company makes decreases exponentially at a rate of 0.9% per year.
In 2014, the profit was $9500.

Calculate the profit in 2019.

$ .... [2]

5 - (0580/22_Winter_2015_Q8) - *Percentages*

Robert buys a car for $8000.
At the end of each year the value of the car has decreased by 10% of its value at the beginning of that year.

Calculate the value of the car at the end of 7 years.

Answer $ .... [2]

6 - (0580/41_Summer_2018_Q3) - *Simple And Compound Interest*

(a) The price of a house decreased from $82 500 to $77 500.

Calculate the percentage decrease.

.... % [3]

(b) Roland invests $12 000 in an account that pays compound interest at a rate of 2.2% per year.

Calculate the value of his investment at the end of 6 years.
Give your answer correct to the nearest dollar.

$ .... [3]

7 - (0580/23_Winter_2022_Q12) - *Simple And Compound Interest*

Keita invests $4000 at a rate of 2.6% per year compound interest.

Work out the interest earned on the investment at the end of 3 years.

$ .... [3]

8 - (0580/23_Winter_2020_Q17) - *Percentages*

Adil and Brian are paid the same wage.
Adil is given a 7% pay decrease and his new wage is $427.80 .
Brian is given a 7% pay increase.

Work out Brian's new wage.

$ .... [3]

9 - (0580/42_Winter_2016_Q1) - *Percentages, Simple And Compound Interest*

(a) (i) Each year the value of a car decreases by 15% of its value at the beginning of that year.
Alberto buys a car for $18 000.

Calculate the value of Alberto's car after 3 years.

$ .... [2]

(ii) Belinda bought a car one year ago.
The value of this car has decreased by 15% to $14025.

Calculate how much Belinda paid for the car.

$ .... [3]

(b) Chris invested some money at a rate of 5% per year compound interest.
After 2 years the value of this investment is $286.65 .

Calculate how much Chris invested.

$ .... [2]

(c) Dani invested $200 and after 2 years the value of this investment is $224.72 .

Calculate the rate of interest per year when the interest is

    (i) simple,

....% [3]

    (ii) compound.

....% [3]

10 ▪ (0580/21_Summer_2016_Q5) ▪ *Foreign Exchange*

Omar changes 2000 Saudi Arabian riyals (SAR) into euros (€) when the exchange rate is €1 = 5.087 SAR.

Work out how much Omar receives, giving your answer correct to the nearest euro.

€ ....[2]