

**1. Nov/2021/Paper\_21/No.1**

- (a) In October, Sara is charged \$84.25 for water.  
A tax of 8% is added to this amount.

Calculate the total amount Sara is charged for water in October including tax.

\$ ..... [2]

- (b) The table shows the rates that Sara is charged for her gas and electricity supply.  
She is charged a fixed amount each day plus an amount for each unit used.

|             | Cost for one day | Cost for one unit |
|-------------|------------------|-------------------|
| Gas         | 23 cents         | 4.3 cents         |
| Electricity | 28 cents         | 16 cents          |

- (i) Sara uses a total of 960 units of gas in the 30 days of November.

Calculate the total amount, in dollars, Sara is charged for gas in November.

\$ ..... [2]

- (ii) Sara is charged a total of \$30.80 for electricity in the 30 days of November.

Calculate the number of units of electricity she used.

..... units [3]

- (c) The amount of electricity generated is measured in Gigawatt hours (GWh).  
The table shows information about the amount of electricity generated in different countries.

| Country   | Electricity generated in 2010 (GWh) | Electricity generated in 2016 (GWh) |
|-----------|-------------------------------------|-------------------------------------|
| Australia | $2.37 \times 10^5$                  | $2.43 \times 10^5$                  |
| Japan     | $1.09 \times 10^6$                  | $1.03 \times 10^6$                  |
| Spain     | $2.91 \times 10^5$                  | $2.64 \times 10^5$                  |
| Turkey    | $2.03 \times 10^5$                  | $2.62 \times 10^5$                  |

- (i) Calculate how much more electricity was generated in Japan than in Australia in 2016.  
Give your answer in standard form.

..... GWh [1]

- (ii) Calculate the percentage increase in electricity generated in Turkey from 2010 to 2016.

..... % [2]

- (iii) There was a 4% decrease in the amount of electricity generated in Spain from 2013 to 2016.

Calculate the amount of electricity generated in Spain in 2013.



..... GWh [2]

- (a) Jasmine buys a family holiday to India.  
Here is some information about the cost.

|            |        |
|------------|--------|
| Flights    | \$700  |
| Hotel      | \$1550 |
| Total cost | \$2250 |

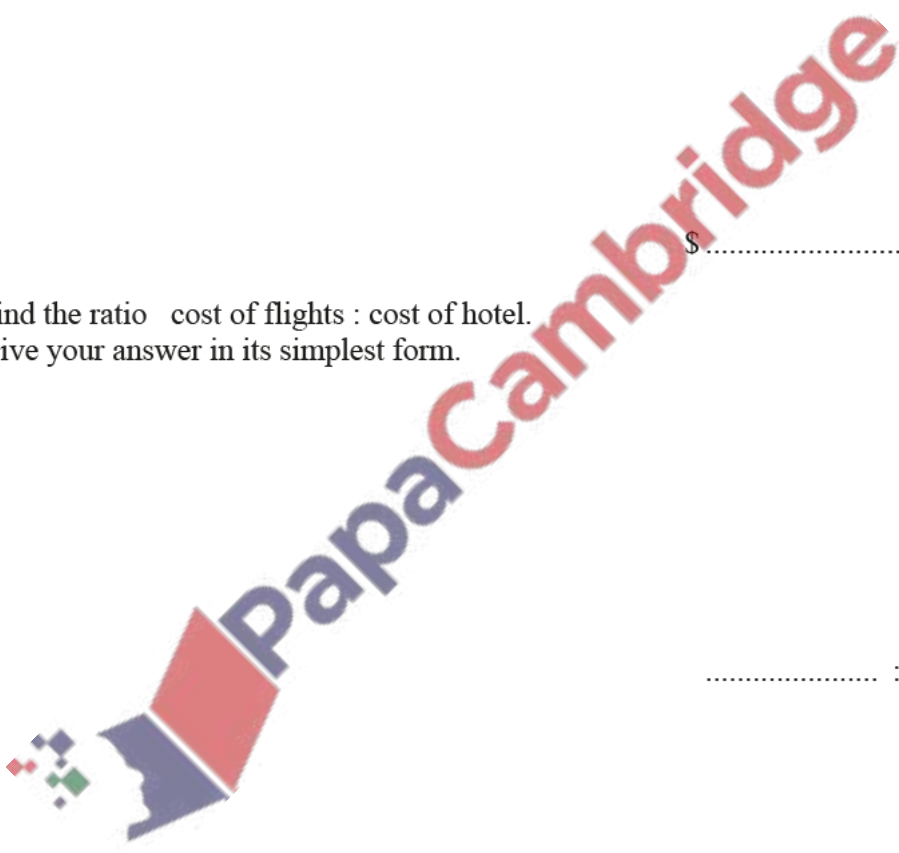
- (i) In October, Jasmine pays a deposit of 12% of the total cost.  
She pays the rest of the total cost in December.

Calculate the amount she pays in December.

\$..... [2]

- (ii) Find the ratio cost of flights : cost of hotel.  
Give your answer in its simplest form.

..... : ..... [2]

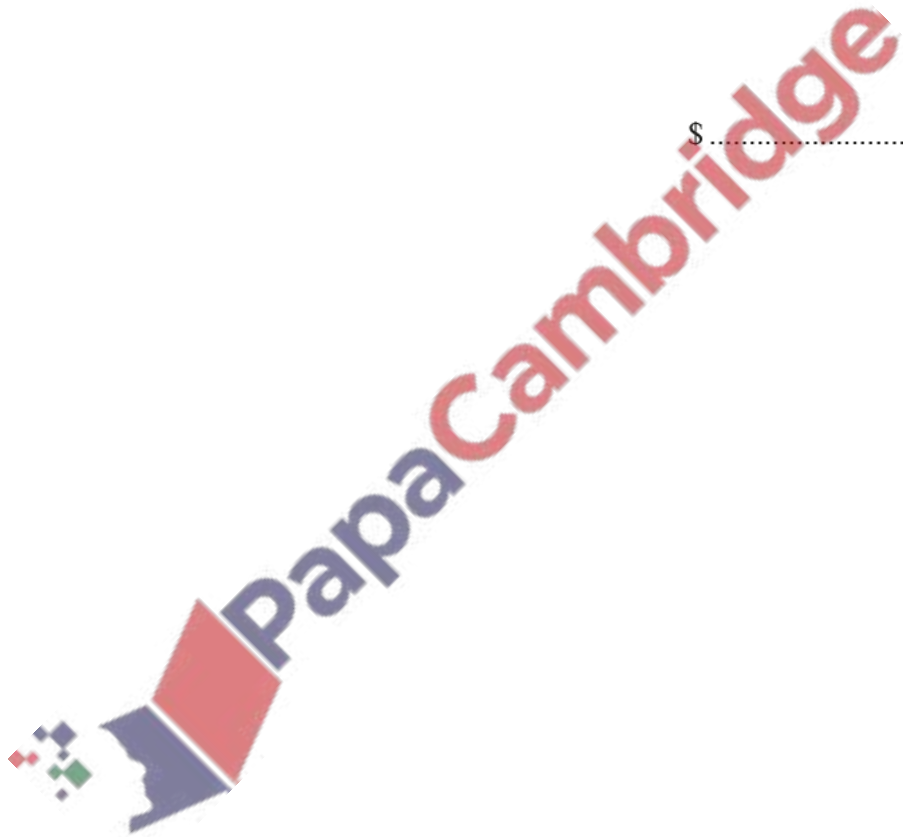


- (b) Jasmine changes \$350 into rupees.  
The exchange rate is \$1 = 71.6 rupees.

On holiday, she spends 19 500 rupees.  
She changes the rest back to dollars at the same exchange rate.

Calculate the amount of money she receives.  
Give your answer correct to the nearest cent.

\$ ..... [3]



(c) The table shows the number of tourists and the total tourist spending for some countries in 2016.

| Country    | Number of tourists | Total spending in dollars |
|------------|--------------------|---------------------------|
| China      | $5.93 \times 10^7$ | $4.44 \times 10^{10}$     |
| India      | $1.46 \times 10^7$ | $2.31 \times 10^{10}$     |
| Kenya      | $1.27 \times 10^6$ | $1.62 \times 10^9$        |
| Madagascar | $2.93 \times 10^5$ | $9.13 \times 10^5$        |

(i) Calculate how many more tourists visited India than Kenya in 2016.  
Give your answer in standard form.

..... [1]

(ii) Calculate the average amount spent per tourist in China in 2016.  
Give your answer correct to the nearest dollar.

\$ ..... [2]

(iii) From 2014 to 2016, the total amount spent by tourists in Madagascar increased by 23.5%.  
Calculate the amount spent by tourists in Madagascar in 2014.

\$ ..... [2]



3. June/2021/Paper\_11/No.12

Bernard bought a game in the USA for \$15.

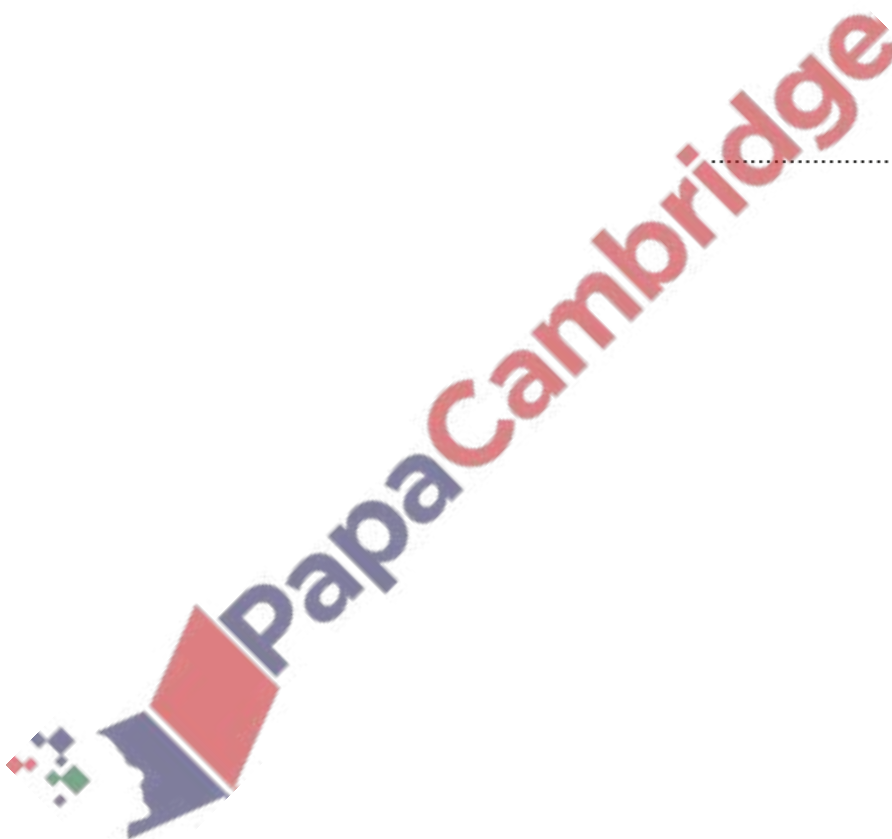
Alice bought the same game in Zambia and paid the equivalent price in Zambian kwacha (ZK).

**Exchange Rate**

$$1\text{ZK} = \$0.075$$

Calculate the price that Alice paid.

.....ZK [2]



(c)

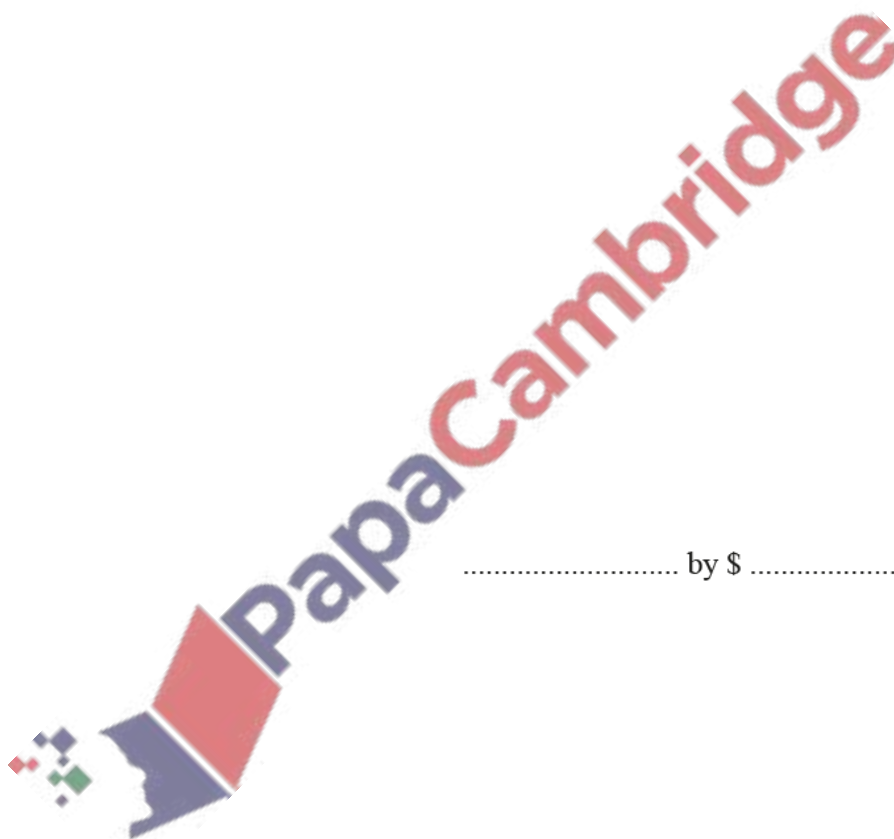
ACE SIMPLE  
Simple interest at  
2.1% per year

COOL COMPOUND  
Compound interest at  
2% per year

Pietro invests \$3500 in the Ace Simple account for 4 years.

Eliana invests \$3500 in the Cool Compound account for 4 years.

At the end of the 4 years, who has more money in their account and by how much?



..... by \$ ..... [4]