# Consumer Arithmetic With Teacher Alton www.maths123.org 

## Worksheet \#1 :Simple and Compound Interest

## Reading of God's Word: Jeremiah 33:3

Call unto me, and I will answer thee, and show thee great and mighty things, which thou knowest not.

My Declaration: I will call upon God and He will show me great and mighty things that I do not know. Amen.

1. Mary borrowed $\$ 2000$ at a rate of $5 \%$ per annum. Interest is compounded annually. Calculate the total amount owed at the end of two years.
2. James wish to invest $\$ 6000$ for 6 months in either Fund $A$ or Fund $B$ :

Fund A: A fixed deposit account earning simple interest at $12.5 \%$ per annum.

Fund B: The Bonanza Fund 12\% interest compounded annually.

In which fund should James invest?
3. Simon deposits $\$ 3600$ into a building society savings fund which offers $\mathrm{R} \%$ per annum simple interest. He receives $\$ 4260$ after 15 months. What is the value of $R$ ?

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Profit and Loss: Worksheet \#2 Teacher Alton<br>Reading of God's Word: 1 John 5:14<br>"And this is the confidence that we have in him, that, if we ask any thing according to his will, he heareth us."

My Declaration: I am confident that if I ask anything according to God's will for my life that He will hear and answer my prayer. Amen.

1. Martha borrows $\$ 23500$ from her credit union at $8 \%$ per annum simple interest for $31 / 2$ years. In addition, a fee of $\$ 280$ is charged for processing the loan.

Calculate:
i. the sum of money which she will have to repay the bank at the end of $31 / 2$ years.
ii. the profit percent the credit union makes on the loan
iii. the monthly instalment, if she is required to repay the loan in 42 equal monthly instalments

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2. Fred sells a watch for $\$ 680$. He makes a profit of $25 \%$ on the cost price. What is the cost price?
3. Elizabeth sold a pencil for $\$ 12.40$, thereby making a loss of $8 \%$ on the item.

Calculate:
a. The cost price of the pencil;
b. The selling price Elizabeth should request in order to make a $18 \%$ profit.

# Consumer Arithmetic With Teacher Alton www.maths123.org <br> Wages and Commissions: Worksheet \#3 Teacher Alton 

## Reading of God's Word: Philippians 4:6-7.

"Be careful for nothing; but in every thing by prayer and supplication with thanksgiving let your requests be made known unto God. And the peace of God, which passeth all understanding, shall keep your hearts and minds through Christ Jesus."

My Declaration: I will not be anxious for anything. Through prayer and thanksgiving, I will let my requests be made known unto God. His peace shall keep my heart and mind, in Jesus' name. Amen.

1. Andrew repairs stoves. He charges $\$ 84.50$ for the first hour and $\$ 73.20$ for each extra hour's work. On Friday last week, Andrew repaired a stove and charged a total of $\$ 764$.
a. How many hours on Friday did Andrew spend repairing this stove?
b. If Andrew is paid within 2 days he reduces his charges by 4\%. Andrew was paid the next day for repairing the stove. How much was he paid?

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2. Banabas earns a basic wage of $\$ 525$ weekly, together with a commission of $6 \%$ on all sales. During a four-week period the salesperson's sales were \$18 300. How much did Banabas earn?
3. Sarah earns a basic rate of $\$ 25$ per hour working as a security guard. Her overtime rate of pay is $\$ 40$ per hour. This week Sarah earned $\$ 1980$. She worked 12 hours overtime.
a. Calculate the amount she earned at the basic rate.
b. Calculate the number of hours that she worked at the basic rate.
c. Sarah noticed that her earnings of $\$ 1980$ showed a decrease of $15 \%$ of her last week's earnings. What was her earnings last week?

# Consumer Arithmetic With Teacher Alton www.maths123.org <br> Worksheet \#4: Hire Purchase, Depreciation and Exchange Rates 

## Reading of God's Word: 1 Timothy 2:1

"First of all, then, I urge that supplications, prayers, intercessions, and thanksgivings be made for all people."

Declaration: As I pray, I will remember to intercede and give thanks for others. Amen.

1. The hire-purchase price of a car is $\$ 80,000$. A deposit of $\$ 15000$ is made and the remainder is paid in equal monthly payments of $\$ 1300$.
i. Calculate the number of monthly payments that must be made
ii. If the cash price is $\$ 75000$, express as a percentage of the cash price, the extra cost of buying on hire purchase
2. Mr. Joe bought a new computer for $\$ 7800$. Each year the car's value depreciates by $15 \%$. What will be the value of the computer at the end of two years?

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3. Some years ago, US\$1.00 (United States dollar) was equivalent to J\$3.50 (Jamaican dollar).
(a) Calculate the amount in US currency that was equivalent to J\$7600.
(b) After devaluation J\$1.00 was worth $80 \%$ of its original value. Calculate the new rate of exchange for US\$1.00.
(c) Hence calculate the amount of Jamaican dollars, after the devaluation, that would be equivalent to US $\$ 6400$

# Consumer Arithmetic With Teacher Alton www.maths123.org <br> Worksheet \#5: Bills and VAT 

## Reading of God's Word: 1 Timothy 2:1

"But thou, when thou prayest, enter into thy closet, and when thou hast shut thy door, pray to thy Father which is in secret; and thy Father which seeth in secret shall reward thee openly."

Declaration: I will enter my prayer room and pray in secret. God will hear my prayers and reward me in the open. Amen.

1. Billy made a call to Client $A$ and the call summary is stated below:

| Client | Duration of call in <br> hours | Fixed charged for <br> the first 5 <br> minutes | Additional charge <br> per minute |
| :--- | :--- | :--- | :--- |
| Client A | $3 / 4$ | $\$ 2.19$ | $\$ 0.18$ |
| VAT | $15 \%$ on cost of call. |  |  |

(a) Calculate Billy's total cost for his call to Client A;
(b) Billy paid his bill within 1 week and received a 5\% discount on his total cost. How much was paid?

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2. Electricity charge in Country $A$ is as follows:
(i) Fixed Charge per kWh for the first 500 KWh is 35 cents
(ii) 75 cents per KWh over 500 kWh .

Calculate:
(a) the electricity charges for a customer who used 1059 kWh .
(b) Value-Added Tax (VAT) of $15 \%$ on the electricity charges.

Calculate:
(i) the tax on the customer's electricity charges, giving your answer to the nearest cent.
(ii) the total amount paid by the customer.

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3. The table below shows the cost of posting parcels:

| Descriptions | Rates |
| :--- | :--- |
| Parcels not exceeding <br> 750 g | 35 cents |
| Each additional 400 g or <br> part thereof up to a <br> maximum of 2000 g | 40 cents |
| Registration Fee for Parcel: \$4.58 |  |

What is the cost of posting :
(a) An unregistered parcel weighing 1450 g?
(b) A registered parcel weighing 2 kg ?

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## Worksheet \#6: Income Tax , VAT and Profit/Loss

## Reading of God's Word: James 5:16

" Confess your faults one to another, and pray one for another, that ye may be healed. The effectual fervent prayer of a righteous man availeth much."

Declaration: I will confess my faults and pray for others so that I may be healed. My prayers will be effective, in Jesus' name. Amen.

1. Toni's gross salary is $\$ 2800$ per month. Her tax free allowances are as follows:
(i) First Time Home Owner Allowance 5\% of gross salary
(ii) Personal Allowances $\$ 3000$ per year

Calculate
(a) Her gross yearly salary
(b) Her total tax free allowances for the year
(c) Her taxable yearly income
(d) A $15 \%$ tax is charged on the first $\$ 18000$ of taxable income. A $20 \%$ tax is charged on the portion of taxable income above $\$ 18000$. Calculate the amount of income tax Toni pays for a year

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2. (a) After a $15 \%$ VAT rebate, Gina pays $\$ 420$ for groceries. What was the total amount before the VAT rebate?
(b) Lisa paid $\$ 360$ for a dress originally on sale at a discount of $20 \%$ off the selling price. What was the selling price?

3 Steve bought 800 mangoes at $\$ 0.40$ each. Ninety mangoes were bad. He sold the remainder at $\$ 0.60$ each. Calculate his percentage profit/loss on the amount he paid for the mangoes.

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