

VOL. 11 | JUNE 2019



Maths^{at} SHARP

Updates for the lovers and teachers of all things Maths

Maths^{at} SHARP

For the love of all things Maths

A division of Seartec



School holidays

In a week's time we will be in Durban attending the 25th national AMESA conference at the UKZN Edgewood campus.

We will be presenting 3 maths market sessions there including some in-depth training on the new EL-W535SAB and the exciting work we have been doing with the department of education! If you are coming to AMESA, come past the Sharp stand and say hi!



HELLO THERE :)

I know, i know, it has been a long time since you saw one of these emails in your inbox! Isn't it funny how you always think that somehow you will have more time than you do.

I remember sitting down to write the newsletter that shared how we were expecting our little girl, and just the other day she became 6 months old! They didnt tell you that when you become a parent time speeds up by a factor of 100!

Maths News

Around South Africa

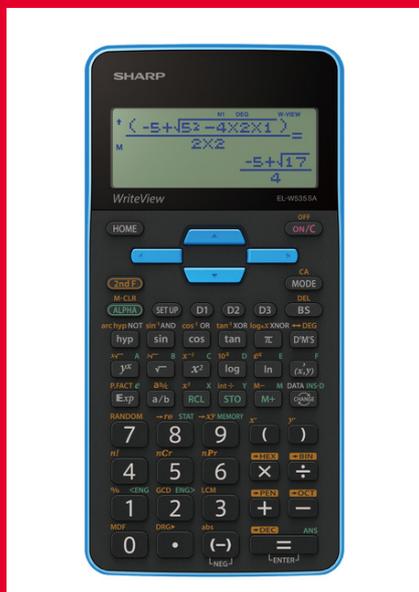
So what have we been up to since we last spoke?

In recent months we have partnered with the Gauteng department of Education, Clever Minds and Red Pencil Group to supply the Sharp EL-W535SAB scientific calculator to the students and teachers in no-fee schools. We have also embarked on an extensive training schedule training both the teachers and then the students. It has been incredible to watch the students' excitement as they've learnt new and exciting tricks across core maths and math literacy. What is incredible is to see the almost 40% average improvement between the pre-and post-tests.

Miriam recently joined us as part of the team of trainers that went into the schools, and spent a Saturday at the Mpumalanga AMESA provincial conference held in May. There she spent time explaining the Sharp EL-W535SAB, the S25 junior Quiz calculator and the EL-W506!



Seartec was also recently at the Gauteng SAPA conference where we met many dedicated principles and maths teachers and showed them our range of copiers and calculators.



How to: Find the 5 number Summary

Buttons:

Press MODE
Choose 1 for STAT
Press 0 for SD
Type in your data and press = after each value.
Once your data is entered press the CHANGE button
To find the 5-number summary press ALPHA 8 and then 0 and scroll down.

MODE
1
0
= # = etc
CHANGE
ALPHA 8 0

Interesting things

For the classroom

Just this morning I received a call from Wesbank offering me a security service. The frightening reality is that many South Africans are touched by crime. What, you may ask, does all of this have to do with Maths?

Well, an interesting article by Chris Budd, shows how maths is used to solve crime, from finding the speed a car was going using the skid marks it left behind, to fixing a blurred photograph to find a getaway car. Read all about it [here](#). An interesting discussion in class might be to consider where else mathematics could be used to fight crime.

On another personal note, we have recently run into some issues with finances and retirement money. The sad reality is that there are a lot of people who have not saved towards their retirement, and will be in dire straits if they cannot continue to earn. Unfortunately many students are not exposed to saving and pension or retirement funds before leaving school and do



not understand the importance of saving for the future until it is too late. This is something every student should be taught and can be adjusted to grade level.



BACK TO SCHOOL TERM 3

ON SALE NOW



Back to School Term 3 Sale

Pricing available until the 31st of July

We currently have both the S25 and EL-W535SAB on sale.

Get 10 or more S25's including delivery for R70 each, or get 10 or more EL-W535SAB's for R170 each.

If you are outside of Gauteng, a delivery fee of R100 will be charged for orders below R2000.

THE SHARP EL-S25



- Practice mental maths on the Sharp S25 with instant feedback
- Until the end of July get 10 or more Sharp S25 drill calculators for R70.00 each, including delivery!
- To order, call or email today - 011 405 7400 or calculators@seartec.co.za

Special valid in Gauteng only. Subject to orders of 10 or more and stock availability.

Interesting things continued

For the classroom

For example, if you currently earn R20 000 a month, and want to retire at your current level of income in 40 years time, how much would you need on a monthly basis based on an average inflation rate of 5%? (I get R140 800 per month)

From there, you can explore how much money you would need if you lived for another 30 years approximately. (This gives me R50 688 000).

Now here is where it gets interesting and you can play with different scenarios. If we needed to save R51 million rand over 40 years, and without taking interest into account, we would need to save R106 250 a month!

This just shows how important compounding interest and retirement annuity investments are. If we did a simple compound interest formula with an interest rate of 7% and we deposited R24 000 in year 1, we would have R359 387 after 40 years. If we were teaching math literacy or matrices, we could bring in the retirement annuity formula as well.

The applications from here are incredibly interesting as you could develop them towards patterns, or compounding intervals. You could also look at the tax free savings accounts and what

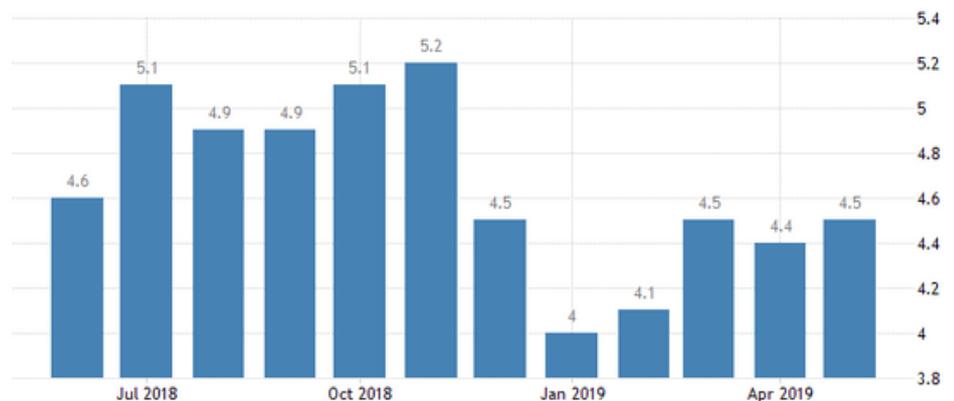
$$195 \times \left(1 + \left(\frac{\text{interest rate}}{12}\right)\right)^{12 \times 30}$$

$$+$$

$$10517 \times \frac{\left(1 + \frac{\text{interest rate}}{12}\right)^{12 \times 30} - 1}{\frac{\text{interest rate}}{12}}$$

$$= \text{new balance}$$

sort of return on investment these would bring in (as a reference point my savings account currently has an interest rate of 6.85%). Now here is a real world application every student should be aware of!



SOURCE: TRADINGECONOMICS.COM | STATISTICS SOUTH AFRICA



Sign off

Before I go, here is a riddle for you:
Where do fish keep their money?

Enjoy the school holidays, and travel safe if you spending some time away from home. Dont forget to come and say hi at the Sharp table at AMESA next week!

Your in maths,
Tal and the Sharp Team

