



Learning Raised to the Power of Q

# GETTING THAT TOP SCORE FOR PSLE 2016

## PART 1

### COMMON ERRORS IN MATH AND HOW TO AVOID THEM

A PUBLICATION OF

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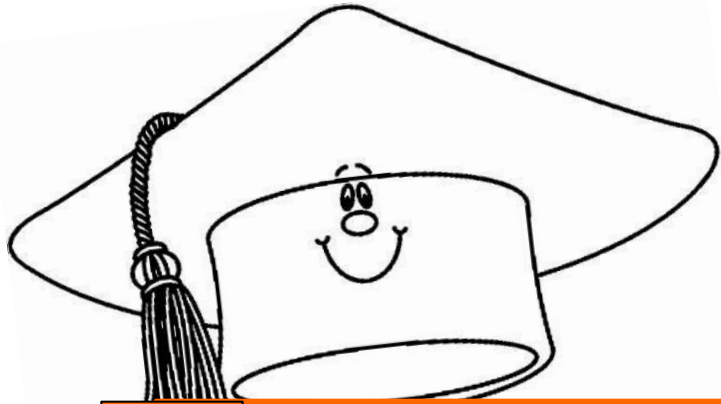
A 5 cm cube is not the same as a  $5\text{ cm}^3$

**8**

$\frac{1}{3}$  of a Remainder is **NOT**  $\frac{1}{3}$  of the  
Total

**9**

About Us



## Chapter One

# INTRODUCTION

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# Some common errors in Math and how to avoid them

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Exams round the corner and stress levels rising?

Are you burning the midnight lamp and find that you are still making careless mistakes?

With the exams closing in, it is natural for children and parents to start getting anxious. However, over anxiousness and high levels of stress are actually often responsible for more careless mistakes.

Errr... Yes I know- it's easy to say that ... but how do I keep my stress levels down, motivation up and stop making careless mistakes?

Here are some Tips that will help.

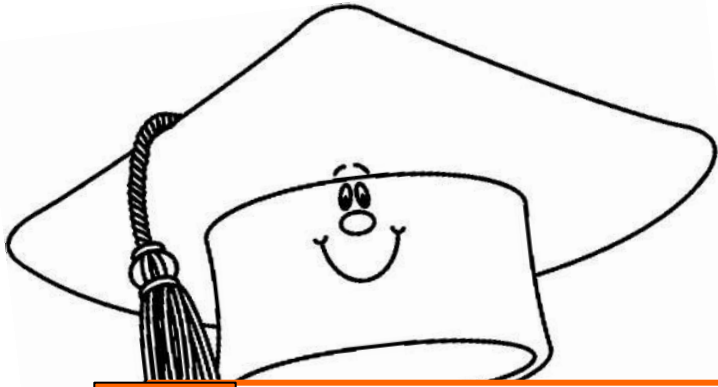
## **Mistakes are your best friend**

I know that sounds ridiculous but believe me the more mistakes you make before the exam, the less mistakes you will make in the exam.

So what do you think? Isn't it better to finish making all the mistakes before the exam so that you are then ready to **Ace** the exam?

Everyone makes mistakes but what is more important is actually reviewing them, identifying the root cause and **then learning** from them. Are they conceptual gaps or are they **"careless"** mistakes. Correcting careless mistakes is an easy fix and can often improve grades quite substantially.

In this e-book, we will help you identify some **"common careless"** mistakes and give some tips on how to avoid them.



## Chapter Two

# COPYING THE WRONG NUMBER

# Copying the wrong number

*Ever worked out the question correctly and written the correct answer in the working column but copied it wrong in the final answer?*

Don't worry! This is a very common error most students make and it makes you feel rather foolish as you feel marks are just being thrown away.

*So how can you ensure that you avoid careless mistakes of this nature?*

- Be careful when moving from one step of the problem to the next
- Don't skip steps as this often leads to calculation and copying errors
- An example of a common error of this type is: writing "16" instead of "19"

## An Illustrated Example:

Box A weighs 45Kg and Box B is 19 Kg more.  
What is average mass of the two boxes?

A = 45 Kg, B = 45 + 19 = 64 Kg  
average =  $109/2 = 55.5$  Kg **X**

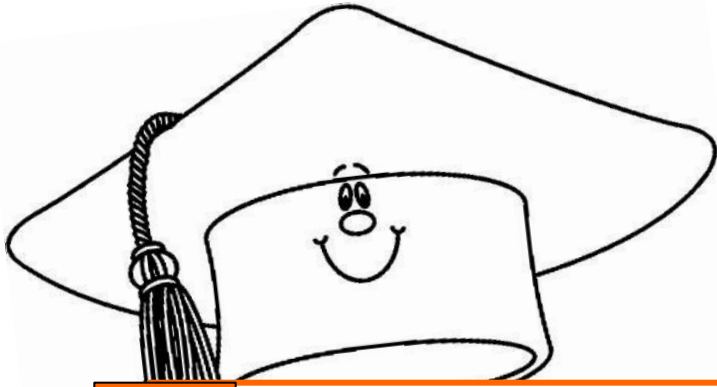
### Working

$$\begin{array}{r} 45 \\ + 19 \\ \hline 64 \end{array}$$
$$\begin{array}{r} 45 + 64 \\ \hline 2 \\ = \frac{109}{2} \\ = 54.5 \end{array}$$

**Tip!**

*Make sure you check both your working and your final answer to ensure that they match*





## Chapter Three

# WRITING THE WRONG UNITS

# Writing the Wrong Units

*How often have you written down “cm” instead of “m” or forgotten to write down the unit completely and then felt guilty about losing marks for this carelessness??*

We know ....It happens to the best of us. But here are some ways to avoid this mistake.

- It is important to **read** the problem and question carefully and **underline** the units required in the question
- Answer** in the **correct unit** as asked.
- Never** write a number statement with an incorrect unit - either write units everywhere or leave it out completely
- Make sure you convert all measurements into one basic unit to avoid miscalculation
- Check your question and the answer for the last time once you have worked it out.

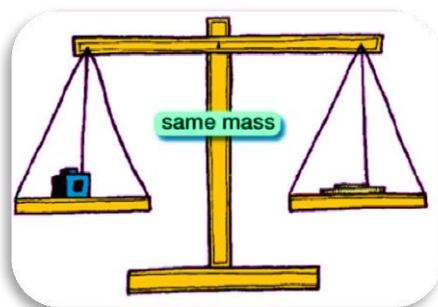
## ***Illustrated Example:***

**Question:** 5.3 Kg of choc was mixed with 7.15 kg of cocoa. The mixture is put in packets of 40 g each.

- How many 40 g packets are there?
- How many grams of the mixture is left over?

**Answer:** Total mixture :  $5.3 \text{ kg} + 7.15 \text{ kg} = 12.45 \text{ kg}$   
 $12.45 \text{ kg} = 12450 \text{ g}$   
 $12450 \div 40 = 311.25 \text{ g}$

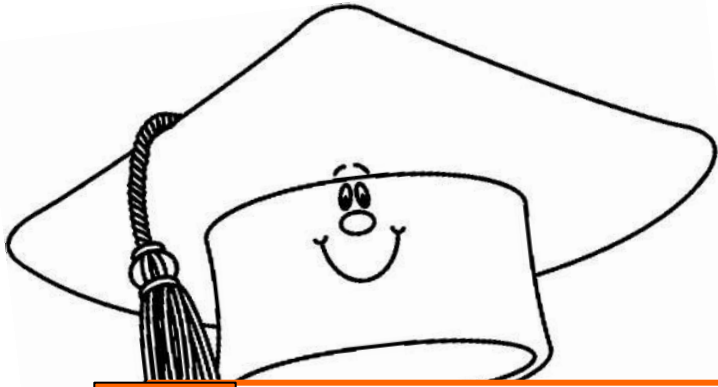
a) 311 packets. b) 0.25 g or 250 mg is left over



**Tip!**

***Always verify the units asked in the question and compare it with the answer.***





## Chapter Four

# TRANSPOSITION ERRORS

# Transposition Errors

Have you ever written “52” instead of “25?” or “35” instead of “53?”

These are called Transposition errors and occur quite often and are something that one needs to be mindful of.

Some other Transposition errors and when they normally occur are:

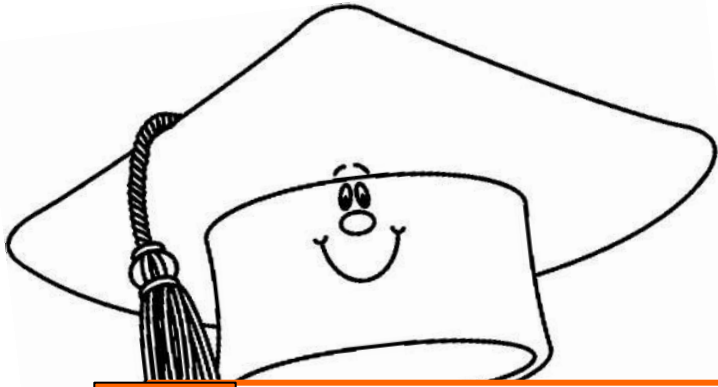
Error	When does this happen
“133” written as “113”	When a digit occurs twice in the same number
‘345” written as “435”	When digits in a number are in sequence

Original number: 1002789

Transposed numbers: 1002879  
1020789  
1002789



*Be careful when digits are either “repeated” or “in sequence.”*



## Chapter Five

# HANDWRITING MATTERS

# Handwriting Matters

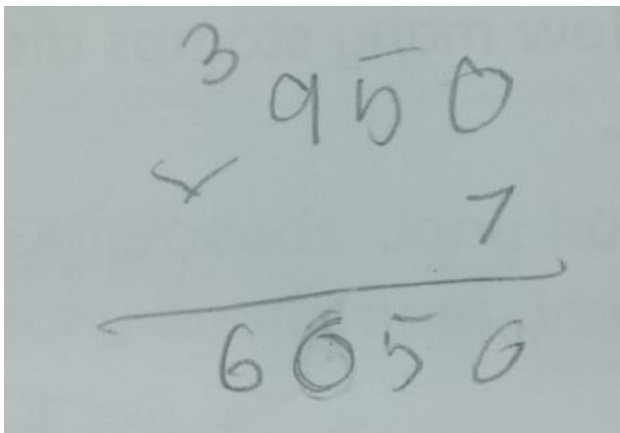
How often has your “0” looked like a “6?” Have you lost marks because your teacher or examiner couldn’t understand what you had written?

Illegible handwriting is very common and an easy way to “lose” or “donate” marks which could otherwise have gone straight into your coffer.

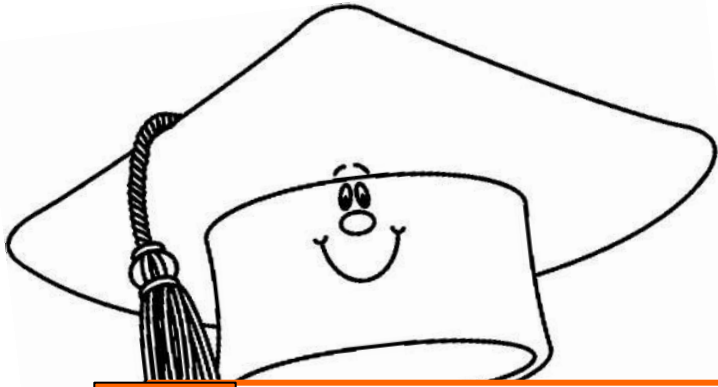
Well this is quite easily fixed. And how is that? My friend’s son who is 19 lost 5 marks in his math paper simply because the teacher was unable to read his handwriting, even though his answer was correct!

So.....

- ✓ Practice writing your numbers and your number statements clearly and legibly
- ✓ Minimise carelessness by ALWAYS checking your work at the end to make sure it is legible.



*Check your work and make sure YOU can read it clearly and effortlessly*



## Chapter Six

# PRESENTING DECIMALS

# Presenting Decimals

*Sometimes when one is in a hurry, it's normal to write decimal numbers to the single decimal place instead of 2 decimal places.*

## **Important**

- Always present Decimal Numbers in TWO Decimal Places (round off to the nearest hundredths)
- Applies to questions relating to money value, measurement and anything that involves decimals

## **An example:**

### **Question:**

Melissa has 4.875 kg of beads which is 2.3 kg less than Linda. Find the mass of the beads that Linda has. Give your answer correct to 2 decimal places

### **Answer:**

Linda  $\Rightarrow 4.875 + 2.0 = 7.175$

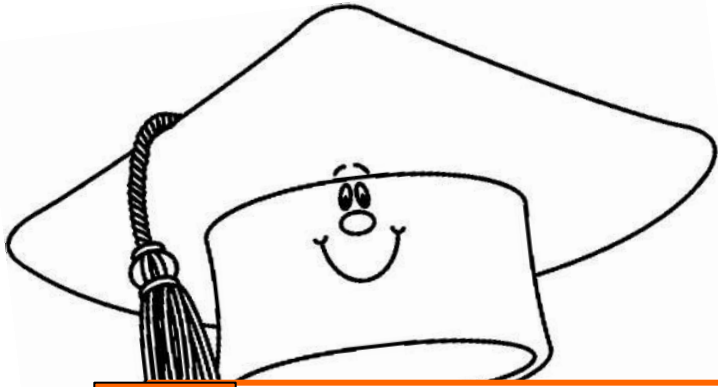
$$\begin{array}{r} 4.875 \\ + 2.300 \\ \hline \end{array}$$

7.175

**Ans:** Melissa has a mass of 7.17 kg **X** (7.18 Kg)

**Tip!**

**Remember – ALWAYS Round off to the nearest hundredths!!**



## Chapter Seven

**A 5 cm cube is not  
the same as  
A 5 cm<sup>3</sup>**

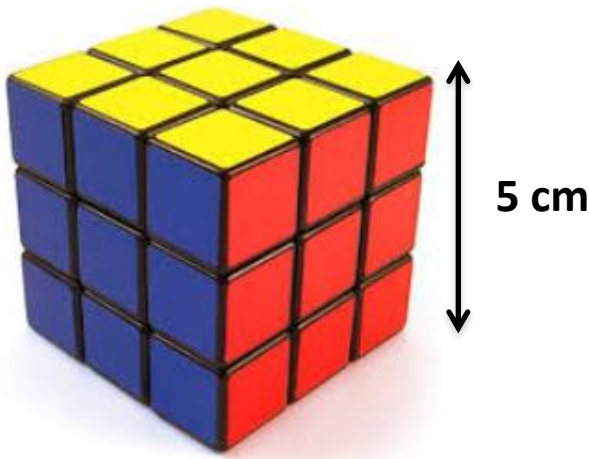
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# A 5 cm cube is NOT the same as A 5 cm cubed

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***Have you misinterpreted a 5 cm cube to mean 5 cm<sup>3</sup>?***

Quite often when one is under stress of completing the exam, question or paper and racing against time, its easy to overlook these minor details which can end up being quite costly towards your final score.



**This is a 5 cm cube,**

**BUT**

**Volume of this cube is**

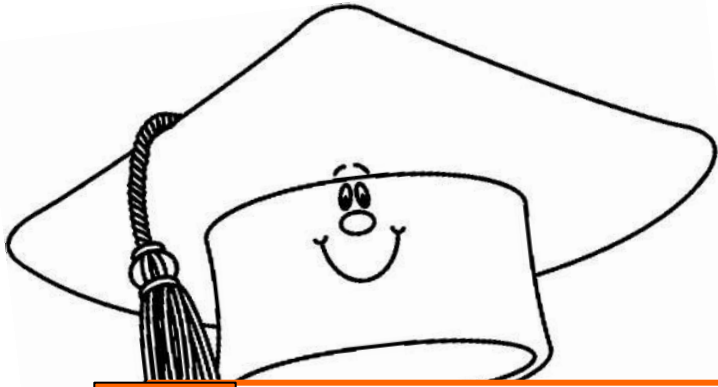
$$5 \times 5 \times 5 = 125 \text{ cm}^3$$



***Read the question carefully .***

***DON'T misinterpret "side " for 'volume"***





## Chapter Eight

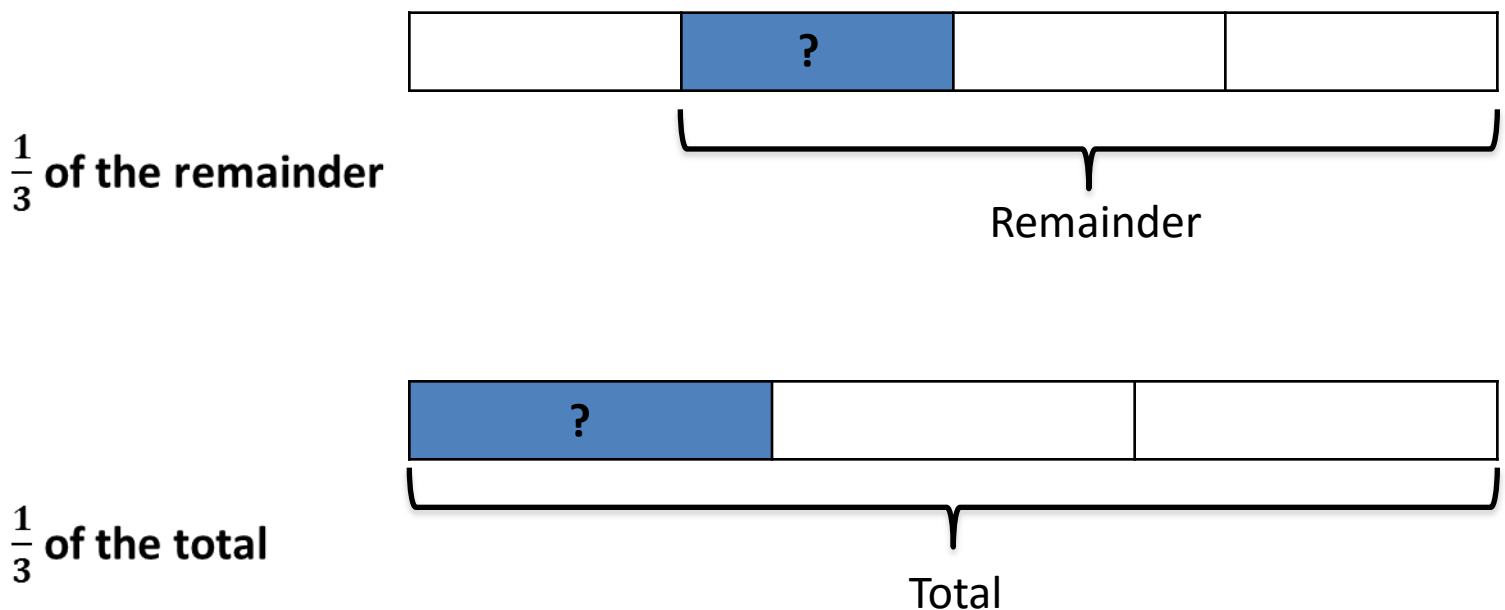
**$\frac{1}{3}$  of a REMAINDER  
IS NOT the same as  
 $\frac{1}{3}$  of the TOTAL**

# $\frac{1}{3}$ of a remainder is NOT the same as $\frac{1}{3}$ of a total

When reading word problems, it's quite easy to skim over the words and even miss out key words sometimes.

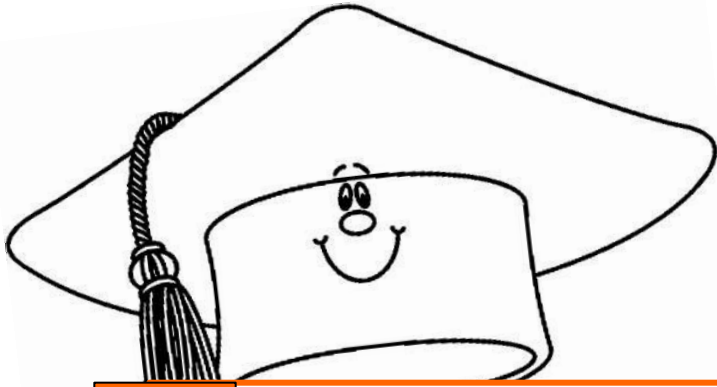
The result : you might still get an answer that looks right but is actually totally different from what it is supposed to be.

## *An illustrated example*



**Tip!**

*Read and underline the “key” words*

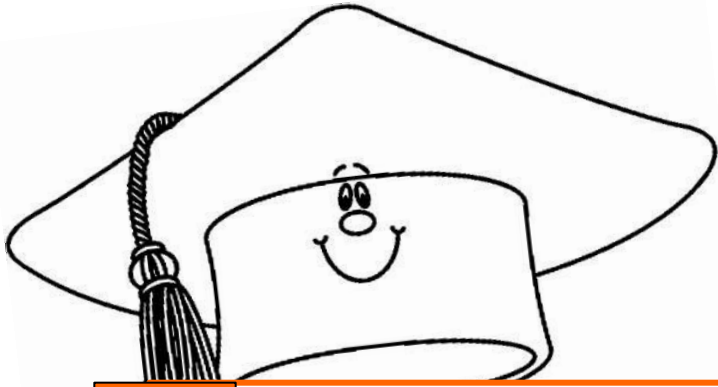


## Chapter Nine

### About

**HIGH<sup>Q</sup>**

Learning Raised to the Power of **Q**



## Chapter Ten

# About Us

# ABOUT US

## ***Committed to helping your child ACE the exams***

Focusing not only on enriching children academically, HighQ creates a holistic learning environment by integrating IQ and EQ. Our goal is to ensure lifelong success for every child through his or her learning journey.

Suitable for children across different curricula, profiles and disciplines our coaches and tutors address individual student requirements via customised learning plans.



Founded by Amita Menon in 2007, HighQ was born out of a commitment to positively shaping the future generation. By providing a holistic learning experience using customised learning plans, heuristic techniques and personalised attention, HIGHQ has been very successful helping children ace their PSLE exams while still continuing to “love” learning and building a generation of individual who can contribute positively in society.

Don't take our word for it .... Hear it from our parents.

***"Amanda had always been strong in maths, but when she dropped to a low score in her first semester results for P6 we were concerned. Enrolling her into a PSLE programme at HighQ gave her the confidence she needed to perform her best. She eventually scored an A\* for her PSLE and even asked to come back to HighQ for secondary math! We love the techniques coupled with personalised attention that Amanda got at HighQ" - J. Wong- Parent of Amanda (P6 student)***

# MORE ABOUT US

We hope you have found this e-guide helpful. We would love to hear from you and help your child becoming the successful student that he or she deserves to be.



## Helps your child get that TOP Score for PSLE Math 2016

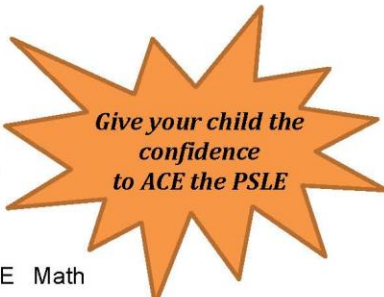
PSLE is getting closer and you and your child are beginning to feel the pressure. Are you wondering what you need to do to get that **TOP** Score?

*Is your child studying hard but feeling that some stagnation has set in? You are now thinking...."How do I motivate my child through this period and help him or her to achieve the success that he or she deserves?"*

If the answer to any of the above is YES, then read further and sign up for **HIGHQ's PSLE Math Intensive Programme 2016.**

### What will my child learn?

- Topic-wise coverage of the PSLE Math Curriculum
- Step by Step guide to PSLE Math Papers
- Emphasis on Paper 2 - non-routine problems
- **Reinforce, Clarify and Refresh** all concepts
- Exposure to mock PSLE papers under exam conditions
- Tips on avoiding "common" errors



*Give your child the  
confidence  
to ACE the PSLE*

### Learning Outcomes

- Thorough understanding of all topics in the PSLE Math curriculum
- Apply knowledge of concepts and heuristic skills in problem solving
- Transform "complacency" to "will to succeed"

### Why HIGHQ

- Interactive sessions
- Challenging and stimulating environment
- Small group sizes ensuring personalised attention



**Hurry! Limited seats  
available!**

**\*REGISTER NOW\***

### Duration & Dates

Date	14 <sup>th</sup> – 17 <sup>th</sup> June & 21 <sup>st</sup> – 24 <sup>th</sup> June (Tues-Fri/8 days)
Time	12.30noon – 4:30pm

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