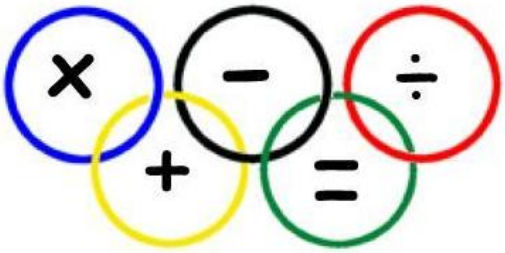
Week 1
Term 1
2024

HAWKER COLLEGE
Engage | Inspire | Achieve

EM1
Welcome to Hawker Maths

Goals



Unit Goals for Essential Mathematics (EM1):

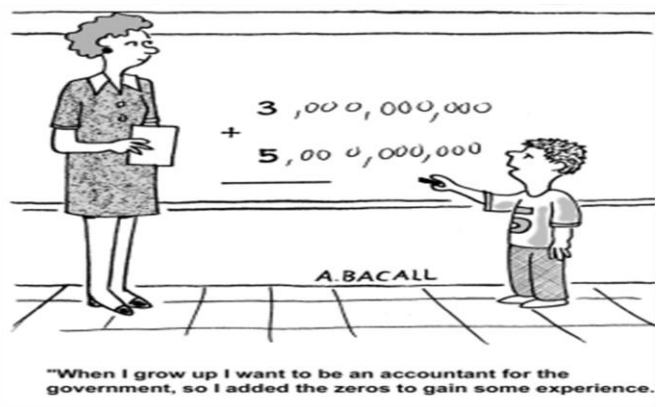
- understand the concepts and techniques in calculations, measurement, algebra and graphs
- apply reasoning skills and solve practical problems in calculations, measurement, algebra and graphs
- communicate arguments and strategies when solving problems using appropriate mathematical language
- interpret mathematical information and ascertain the reasonableness of solutions to problems

Theoretical Components

STEP 1

Resources:
PDF file: Week 1 Notes and Exercises
YouTube videos: Linked in the PDF file

This Week:
Why mathematics – maths affects all aspects of our lives. We need to think of maths as part of our world – not just the classroom.



Practical Components

STEP 2
Read through Week 1 Notes and Exercises for instructions on what to do.

There are 4 exercises to this week's work.

1. Check out the necessary websites and get the codes you need for this class
2. Get to know your teacher and class (in Week 1 Notes)
3. Write a mathematical question from my prompts (in Week 1 Notes)
4. Write a mathematical question from an image of your choice (from web page given in Week 1 Notes)
5. Complete the exercises and portfolio task
6. Bring your work to your teacher for submission (and a brief chat as well)

Portfolio Task

STEP 3

Complete the task at the end of the brief and submit your weekly work. ☺

Other

Remember to check Google Classroom or hawkermaths.com for each week's learning brief. Make sure you have joined the Google Classroom. If you have not, see your teacher.

Decimal Place Value Chart

cuemath
THE MATH EXPERT

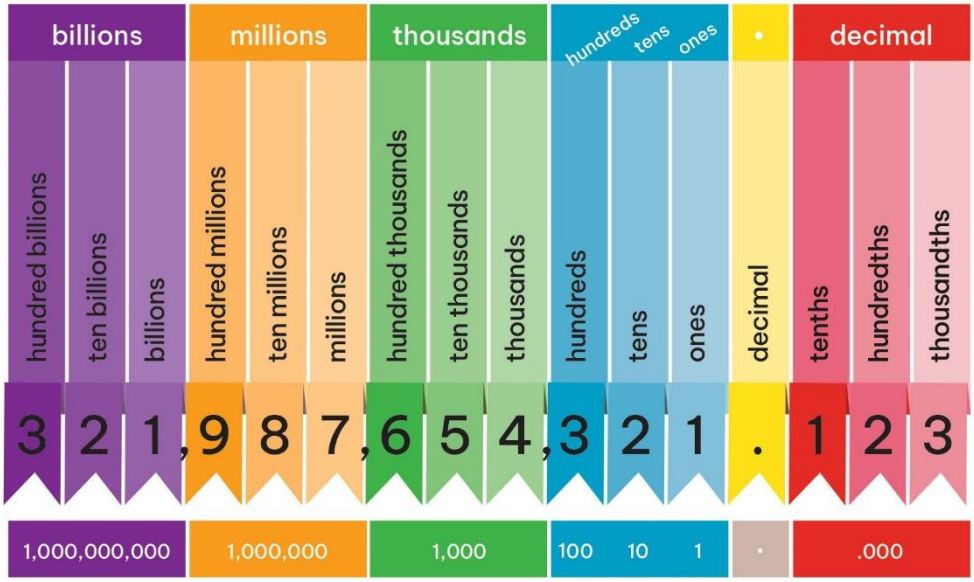
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths	thousandths	ten thousandths	hundred thousandths
HTH	TTh	Th	H	T	O	.	t	h	th	tth	hth
100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$	$\frac{1}{100,000}$

Whole Number Part

Fractional Part

Decimal Point

Place Value



ESSENTIAL MATHEMATICS 1

WEEK 1 – INTRODUCTION

Why study maths?

The purpose of this course is to give you some background skills so you can succeed at something that you really want to do (and we think some maths can really help you with that).

Exercise 1

1. Check out our amazing website www.hawkermaths.com, play around with it until you can find your learning brief! What are the pathways to your learning brief?

2. Join the Google Classroom for this class. Visit https://classroom.google.com/ and join the class using this code **k4af6yw**. If this code does not work, see your teacher.

3. What high school did you go to?

4. What is your teacher's name and email?

5. Who are the other teachers who teach Essential Mathematics?

6. What is the abbreviation for this course?

7. Find someone who has the same number of letters as your first name.

Exercise 2

For this video, you are to come up with a question related to the video. This question could be asked in a mathematics classroom. You do not need to solve the question.

https://www.youtube.com/watch?v=gDkd0Vaxf-c

Exercise 3

Find your own image from this website and create a question that is related to mathematics.

https://mathematicalimages.weebly.com/index.html

Image Chosen:

Question:

Exercise 4

1. Answer the following questions: (use a calculator if you like)

   a. $10 + 10 \div 2 - 1$

   b. $40 \div 2 + 3 \times 7$

   c. $25 \times (5 + 5) - 1$

   d. $27 + 11 \times 9 - 56 \div 8$

   e. 70% of 4000

   f. 70% off 4000

   g. 200% of 10

   h. What percentage is 10 out of 50?

   i. Convert 1.78% into a decimal

   j. Convert 0.84 to a percentage

2. For each week, Annie earns a wage of $15 per hour for the first 26 hours, time-and-a-half for the next 10 hours, and double time after that. Calculate her weekly income if she works 50 hours.

Week 1 Portfolio Task

Your response for this task will be marked and recorded. Ask for help if you need.
Time facts and conversions, you need to know:

Answer the following questions:

1) 1 week = _____ days.
2) 2 minutes = _____ seconds.
3) 1 day = _____ hours.
4) 1 fortnight = _____ weeks.
5) 1 year = _____ months.
6) 3 minutes = _____ seconds.
7) 4 hours = _____ minutes.
8) 3 years = _____ months.
9) January = _____ days.
10) June = _____ days.
11) 49 days = _____ weeks.
12) 240 seconds = _____ minutes.
13) 96 hours = _____ days.
14) 10 weeks = _____ days.

Write a sentence or two explaining why it is important to know these conversions.
Give an example where this knowledge could be useful.

What other measurement facts and conversions do you know?
For example: 100 cm = 1 m

MARKING RUBRIC

CRITERIA	EXPECTATIONS	POSS	MULT	GIVEN	TOTAL
Practical	Student completes practical work, including exercises of the brief to an acceptable standard set by the teacher.	**2**	**3**		**/6**
Portfolio Task	Student completes the portfolio task of the week to an acceptable standard set by the teacher.	**2**	**2**		**/4**
Reasoning and Communications	Student responses are **accurate** and appropriate in presentation of mathematical ideas, with **clear** and logical **working out** shown.	**4**	**-**		**/4**
Concepts and Techniques	Student submitted work selects and applies **appropriate** mathematical modelling and **problem solving techniques** to solve practical problems, and demonstrates **proficiency** in the use of **mathematical facts, techniques** and **formulae**	**4**	**-**		**/4**
	Submission Guidelines				
Timeliness	Student submits the exercises and portfolio tasks by the set deadline. See scoring guidelines for specific details.	**2**	**-**		**/2**
		FINAL			**/20**

Student Reflection:
How did you go with this week's work?

What was interesting?

What did you find easy?

What do you need to work on?