

# **MATHS REVISION**

## **TERM 1 CONTENT**

Keep these sheets in your PRACTICE FILE. Do the examples on your own paper or buy an exercise book to work in. An answer sheet will be available for you to check your progress.

### • **ADDITION**

**Terms used:** add; sum of; total; increase

### • **SUBTRACTION**

**Terms used:** minus; decrease; difference, less than

#### • **PRACTICE EXAMPLES #1**

1.  $6943 + 18793 + 879 =$
2.  $467 + 8093 + 29 =$
3.  $670400 - 2849 =$
4.  $706973 - 287468 =$
5. Increase 4578 by 296
6. What must be added to 573 to give 749?
7. What is the sum of 673; 498; 297 and 469?
8. Decrease 8038 by 2950.
9. How much greater is 752 than 289?
10. What is the total of 630; 397 and 472?

### • **BODMAS**

#### **(ORDER OF OPERATIONS)**

In sums that have more than one operation, there is a particular order in which the operations must be done:

1<sup>st</sup>: do anything inside a bracket (B)

2<sup>nd</sup>: do any division (D) or multiplication (M) next

3<sup>rd</sup>: now do addition (A)

4<sup>th</sup> now do subtraction (S)

Sometimes it helps to put your own brackets in if there aren't any. Bracket division first, then multiplication.

### **OTHER RULES TO REMEMBER:**

- If operations are the same : work from LEFT to RIGHT  
EG  $7 + 4 + 2 = 13$
- If operations are + and – OR x and ÷ : work LEFT to RIGHT in order  
EG  $20 - 8 + 13 = 25$  or  $12 \times 3 \div 6 = 6$

### **PRACTICE EXAMPLES #2**

1.  $38 + 16 - 8 + 3 =$
2.  $126 - 15 + 33 + 12 =$
3.  $36 \div 6 \times 12 \div 8 =$
4.  $16 \times 4 \div 8 \times 2 =$
5.  $81 - (12 \times 5) + 17 - 37 =$
6.  $25 \div (5 \times 2 \div 2) + (5 - 3) =$
7.  $14 \times 24 \div 6 + 17 =$
8.  $12 \times 6 - 15 \div 3 + 14 - 63 =$

## • **NUMERIC PATTERNS**

Numeric patterns ask you to fill in the next number. The pattern could be simple like add 4 or it could be tricky like add 4 x by 2!

### **PRACTICE EXAMPLES #3**

Fill in the next 3 numbers in the pattern:

- |                        |       |       |                      |
|------------------------|-------|-------|----------------------|
| 1. 34, 40, 46 .....    | ..... | ..... | The pattern is _____ |
| 2. 120, 140, 160 ..... | ..... | ..... | The pattern is _____ |
| 3. 5, 10, 20 .....     | ..... | ..... | The pattern is _____ |
| 4. 2, 7, 16, .....     | ..... | ..... | The pattern is _____ |
| 5. 12, 24, 36 .....    | ..... | ..... | The pattern is _____ |

## • **MULTIPLICATION**

**Terms used:** multiply, product (the answer to a multiplication sum), factor, multiple

**Factors:** a factor is a number multiplied by another number to give you an answer.

Some numbers only have 2 multiples – 1 and the number itself, for example 19

Other numbers have lots of factors, for example 48. Its factors are:

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

You need to know your tables well!!

**Multiples:** these are the answers you get when you multiply two numbers. It is really your tables or counting in multiples, for examples the multiples of 2 between 0 and 20 are 2, 4,6,8,10,12,14,16,18

**Words to look out for here are:**

**From:** this means all multiples from the number given to the last number, for example multiples of 4 from 12 to 24 = 12, 16, 20, 24

**Between:** this means all the multiples after the number given to the last multiple before the last number given, for example multiples of 3 between 10 and 26 = 12, 15,18,21,24

### PRACTICE EXAMPLES #4

1. Find all the factors of these numbers:  
24, 36, 54, 68, 128
2. List the multiples of 6 from 8 to 37
3. List the multiples of 5 from 0 to 40
4. List the multiples of 10 between 16 and 50
5. List the multiples of 3 between 4 and 38
6. List the first 5 multiples of 4
7. List the first 7 multiples of 9

## • LONG MULTIPLICATION (multiplying by 2 and 3 digit numbers)

The important thing here is to remember **to put a 0 in the units column** when you begin **multiplying by the tens** and **a 0 in the units and the tens column** when you begin multiplying **by the hundreds**.

Example:

	Th	H	T	U	
			5	3	
x			2	6	
	3	1	8		← Answer line 1
	1	0	6	0	← Answer line 2
	1	3	7	8	← Answer line 3

### PRACTICE EXAMPLES #5

1.  $57 \times 34 =$
2.  $87 \times 29 =$
3.  $234 \times 56 =$
4.  $456 \times 149 =$
5.  $296 \times 485 =$

## • DIVISION

**Terms used:** share, divide, quotient (the answer to a division sum)

You also need to know your tables in order to do division. Division and multiplication are **inverse operations** – they are the opposite of each other.

We use the bottom box for short division:



### PRACTICE EXAMPLES #6

1.  $644 \div 8 =$
2.  $830 \div 4 =$
3.  $403 \div 5 =$
4.  $?? \div 9 = 9$
5.  $?? \div 6 = 13$
6.  $72 \div ?? = 8$
7.  $96 \div ?? = 24$
8.  $14523 \div 12 =$

### PRACTICE EXAMPLES #7 Problem solving using multiplication or division

1. A minibus can carry 12 people. How many minibuses are needed to take 257 people to a soccer match?
2. Each kite needs 135m of string. How much string is needed for 26 kites?
3. A crate of pineapples has a mass of 45kg. What would the mass of 33 crates be?
4. Cape Town station is very busy. Every day 485 trains pass through the station. How many trains will pass through the station in
  - a. One week
  - b. 25 days
5. A local fruit seller 2489 apples. If he packs 8 apples in a bag, how many bags does he need?



## • TIME

**Terms used:** analogue clock (a clock that uses hands to show the time), digital clock (a clock shows the time using numbers); am (in the morning); pm (after noon); 24 hour time (does not use am or pm)

00:00/24:00 is midnight or 12:00am

12:00 is midday or 12:00pm

**Time conversions to know:**

60 seconds = 1 minute; 60 minutes = 1 hour; 24 hours = 1 day; 7 days = 1 week

14 days = a fortnight; 4 weeks = 1 month; 12 months = 1 year; 52 weeks = 1 year

10 years = a decade; 100 years = a century

**PRACTICE EXAMPLES #8**

1. Change these times to 24 hour time:

4:00am; 3:56pm; 2:30pm; 8:45am; 12:30pm; 6:30am; 9:15pm; 3:50am; 1:10pm

2. Change these 24 hour times to analogue time:

14:45; 05:30; 22:00; 15:30; 09:15; 16:07; 17:35; 06:32; 00:00; 19:50

**PRACTICE EXAMPLES #9**

1. How many minutes is it from 10:15am to 11:50am?
2. How many hours is it from 15:45 to 22:30?
3. How many decades in 35 years?
4. How many seconds in 3 minutes?
5. How many hours and minutes in 357minutes?
6. If break starts at 11:55 and ends at 11:15 – how long is break?
7. If a race begins at 6:00 and the last runner comes in at 15:30, how long was the race?
8. How many months are there in 42 years?
9. How many weeks are there in 63 days?
10. If a car travels at 120km/h, how far will he travel in 4 hours?

● **DATA HANDLING**

**Terms used:** **data** (the information collected) **tallies** (marks made to record each item), **tables** (the arrangement of information in columns), **frequency** (the totals of the items), **mode** (the item which appears the most often), **bar graph** (a graphical representation of the information)

Things to remember:

**Tallies:** after the 4<sup>th</sup> item put a line through for the fifth one: 

**Tables:** remember to add up the total

**Bar graph:** main heading; x axis heading; y axis heading; space between the bars; spaces up the y axis.

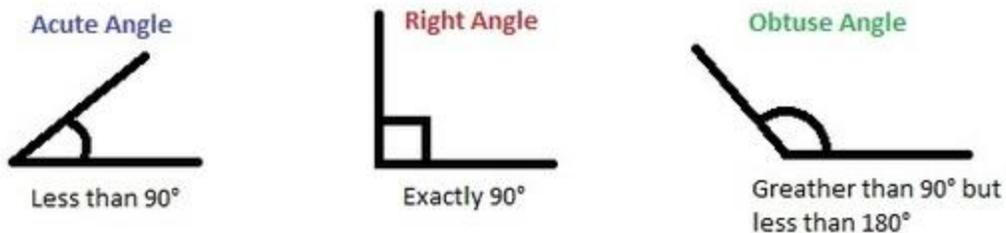
## • 2D SHAPES

Terms used: **two-dimensional (2D)** it means having two dimensions - length and width; **polygon** (a flat 2D shape that is closed by straight lines)

**Some special names for 2D shapes:**

triangle (3 sides); quadrilaterals, rectangles, square (4 sides); pentagons (5 sides); hexagons (6 sides); heptagons (7sides); octagons (8 sides); nonagons (9 sides); decagons (10 sides); circle (1 continuous side)

Polygons have **angles**.



A

triangle has 3 angles and 3 sides.

A square has 4 right angles and 4 sides.

A rectangle has 4 right angles and 4 sides

## • CAPACITY – how much a container can hold

**Terms used:** **mℓ** (milliliter); **ℓ** (liter); **kℓ** (kiloliter); **calibrations** (the markings on a measuring jug)

$$1000\text{ml} = 1\text{l}$$

$$1000\text{l} = 1\text{kl}$$

**Learn these:**

To change ml to l, you must divide by 1000

To change l to ml, you must multiply by 1000

To change l to kl, you must divide by 1000

To change kl to l, you must multiply by 1000

**PRACTICE EXAMPLES #10**

1. Convert these to ml:

$$2\text{l}; 7\text{l}; 3\frac{1}{2}\text{l}; \frac{1}{4}\text{l}; 5\frac{3}{4}\text{l}$$

2. Convert these to l:

$$2000\text{ml}; 3500\text{ml}; 12\,750\text{ml}; 5\,250\text{ml}$$

3. Convert these to kl:

$$4900\text{l}; 2250\text{l}; 14097\text{kl}$$

4.  $65\text{l } 450\text{ml} + 9\text{l } 550\text{ml} =$

5.  $450\text{l } 450\text{ml} - 389\text{l } 150\text{ml} =$

6. Janet waters her garden three times a week. Last week she used  $39\frac{1}{2}\text{l}$ ,  $56\text{l}$ ;  $300\text{ml}$  and  $3800\text{ml}$ . How much water did Janet use altogether?

7. A shopkeeper sells fresh orange juice at R12/l. People bring their own containers of different sizes to be filled. How much must she charge each of these people to fill their containers?

a. Mrs Smith's container holds  $2,5\text{l}$

b. John's can holds  $400\text{ml}$

c. Fred has 2 bottles which each has a capacity of  $1,5\text{l}$

d. Sally brings 4 plastic cups which each hold  $200\text{ml}$

8. A baby must get  $5\text{ml}$  of medicine three times a day for seven days. If a full bottle of medicine contains  $150\text{ml}$ , how much medicine is left over?