

MATHS REVISION GRADE 5

TERM 3 CONTENT

● COMMON FRACTIONS

- A reminder – you can only ADD or SUBTRACT fractions if they have the SAME DENOMINATOR!
- A MIXED NUMBER has a WHOLE NUMBER and a FRACTION making one number.

Adding and subtracting MIXED number with the same denominators is just the same.

$$\begin{aligned} \text{Example: } 1\frac{1}{3} + 5\frac{1}{3} \\ &= 6 + \frac{1}{3} + \frac{1}{3} \\ &= 6\frac{2}{3} \end{aligned}$$

$$\begin{aligned} \text{If you find yourself with this situation: } 6 + \frac{1}{3} + \frac{4}{3} \\ &= 6\frac{5}{3} \end{aligned}$$

You have in fact got another whole number because $\frac{5}{3} = \frac{3}{3} + \frac{2}{3}$

So you have an extra 1 which you add to the 6 to get 7 and you have a remainder of $\frac{2}{3}$. Therefor your answer would be $7\frac{2}{3}$.

● PRACTICE EXAMPLES #1

Calculate these mixed number sums:

$$1. \quad 6\frac{3}{10} + 10\frac{1}{10}$$

$$5. \quad 8\frac{3}{4} - 2\frac{1}{4}$$

$$2. \quad 2\frac{5}{12} + 8\frac{8}{12}$$

$$6. \quad 13\frac{1}{5} - 11\frac{4}{5}$$

$$3. \quad 1\frac{1}{6} + 2\frac{2}{6} + 3\frac{1}{6}$$

$$7. \quad 7\frac{3}{7} - 4\frac{4}{7}$$

$$4. \quad 4\frac{2}{8} + 4\frac{5}{8} + 4\frac{3}{8}$$

$$8. \quad 5\frac{4}{11} + 1\frac{5}{11} - \frac{3}{11}$$

• MASS

Terms used:

mass (how light or heavy an object is

units of measure: **mg** (milligram); **g** (gram); **kg** (kilogram); **t** (ton)

Learn these:

$$1000\text{mg} = 1\text{g}$$

$$1000\text{g} = 1\text{kg}$$

$$1000\text{kg} = 1\text{t}$$

To convert:

$$\text{mg to g } \div 1000 \quad (\text{g to mg } \times 1000)$$

$$\text{g to kg } \div 1000 \quad (\text{kg to g } \times 1000)$$

$$\text{kg to t } \div 1000 \quad (\text{t to kg } \times 1000)$$

Do you know what these mean?

0,5kg is the same as half ($\frac{1}{2}$)

0,250kg is the same as a quarter ($\frac{1}{4}$)

0,750kg is the same as three quarters ($\frac{3}{4}$)

• PRACTICE EXAMPLES #2

Convert the following:

1. $9000\text{g} = \dots\text{kg}$

2. $2500\text{g} = \dots\text{kg}$

3. $4000\text{g} = \dots\text{kg}$

4. $6\frac{1}{2}\text{kg} = \dots\text{g}$

5. $15\frac{3}{4}\text{kg} = \dots$

6. $5\text{t} = \dots\text{kg}$

7. $2\frac{1}{4}\text{t} = \dots\text{kg}$

8. $24000\text{kg} = \dots\text{t}$

Some problems involving MASS!

1. A recipe for chocolate brownies used 250g flour for every 3 eggs. There are 9 eggs used in the recipe, how much flour is needed?
2. An elephant eats 283kg of plants each day. How many kilograms will 3 elephants eat in a week?
3. Calculate the cost of $1\frac{1}{2}\text{kg}$ nuts at R100/kg, $2\frac{1}{4}\text{kg}$ of sweets at R36/kg and 500g of potatoes at R2,00 per 100g.
4. Five friends have the following masses: 35kg, 41kg, 33kg, 42kg and 39kg. The sign in the lift says it can carry a maximum of 11 people and a maximum of 600kg.
 - a. How many more people can get into the lift with the five friends?
 - b. What is the maximum combined mass of the people in question (a) above?

- **ROUNDING OFF TO THE NEAREST 5**

You know how to round off to the nearest 10, 100 and 1000. **Rounding off to the nearest 5 is to find the nearest multiple of 5 to your number.**

Example 18 rounded to the nearest 5 is 20 because 18 is closer to 20 than it is to 15.

- **PROBLEM SOLVING**

Remember these important steps:

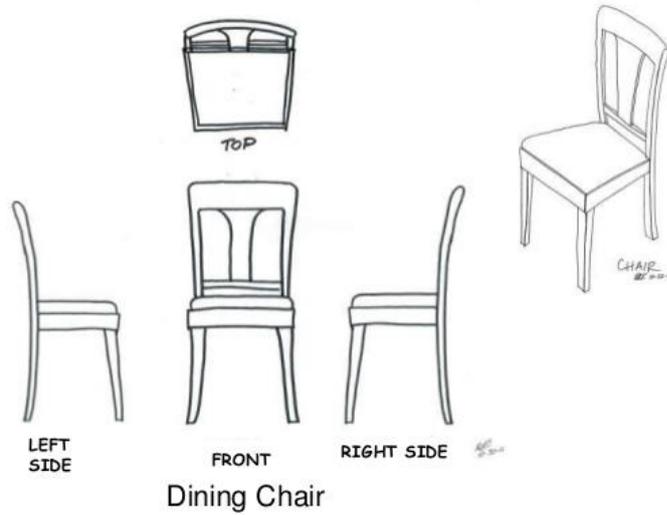
1. Read the problem a few times.
2. Look for clues: altogether; less than, more than etc.
3. Form a picture in your mind of what you are given and what you need to find out.
4. Write a number sentence to show what you are going to do. Remember your number sentence must make sense.
5. Show all working out in full. Do not work on scraps of paper – draw a working column on the right hand side of your page and work out tables etc there.
6. Remember to write an answer sentence at the end of your sum.

Try these #3

1. In November, 21 946 people visited the KNP. In December, there were 24 187 visitors.
 - a. How many people were there altogether in November and December?
 - b. In January, 23 576 people visited the KNP. If 19 289 people visited in February, how many more visitors were there in January than in February?
 - c. The total number of visitors in January, February and March was 69 092. How many visitors were there in March?
2. Last Saturday there were 18 578 people at the pop concert. On Wednesday there were 16 442 at their next concert.
 - a. **Estimate** how many people went to the pop concert altogether. Round off your answer to the nearest 100.
 - b. Now work out the **actual** answer.

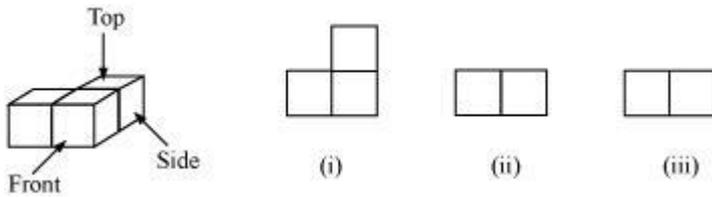
• **VIEWING OBJECTS**

Example of Multi-view Sketch

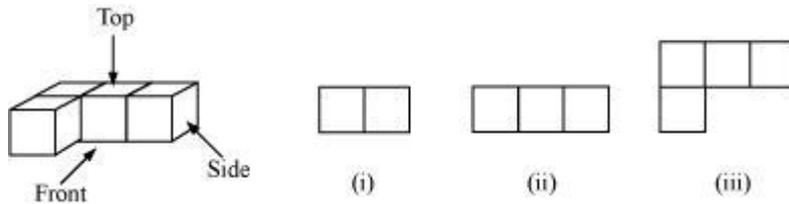


You can view objects from three positions:

- Front
- Side
- Top



Which is (i) _____
 Which is (ii) _____
 Which is (iii) _____



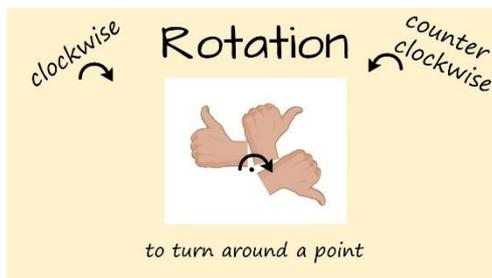
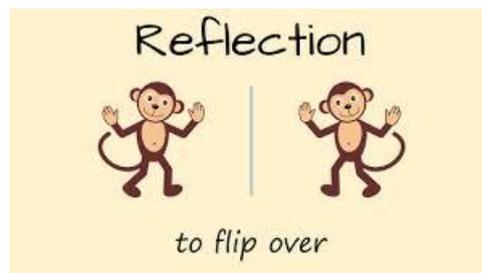
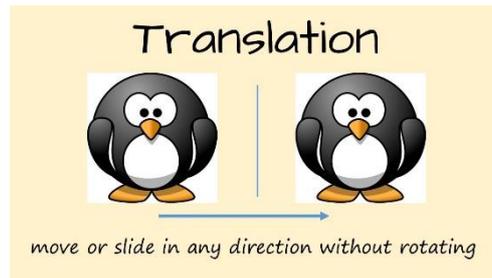
Which is (i) _____
 Which is (ii) _____
 Which is (ii) _____

● TRANSFORMATIONS

Transformation describes the movement of objects or shapes from one place to another.

There are 3 types of transformation:

- TRANSLATE – this is when you SLIDE an object or a shape from one position to another without lifting it or turning it in any way.
- REFLECT – this is when you FLIP an object or a shape over
- ROTATE – this means to TURN an object or a shape to face in another direction.



● TEMPERATURE

Temperature indicates how hot or cold something is.

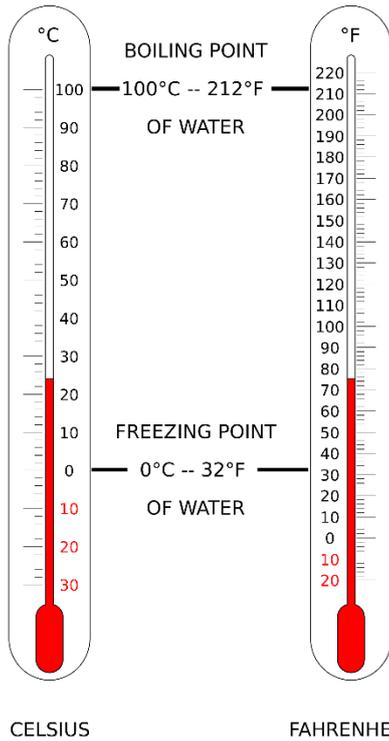
Terms used:

Freezing point : the temperature at which a liquid becomes frozen

Boiling point: the temperature at which a liquid turns to gas

Celsius: the unit of measure for temperature written as °C

Some countries use Fahrenheit – you do not need to know about this



Thermometer: instrument used to measure temperature
Body temperature : 36,9°C

Temperature can also be recorded as a negative number , for example sometimes in winter the temperature is -3°C – this means it is 3° below freezing – kinda cold!

● **DATA HANDLING**

You know all about tallies, frequency and bar graphs- right??

Something new is **mode** – this means when a value in your data occurs the most often.

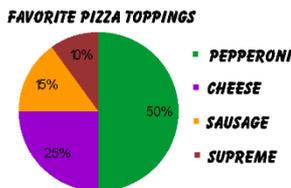
Look at these heights of the children:

Boys	120	140	130	130	110	150	140	140
Girls	110	100	130	130	110	120	120	110

The mode for the boys is 140 and the mode for the girls is 110

Different ways of presenting data

Data can be presented in words, tables and graphs. You are familiar with bar graphs. Then there are **pictographs** where a picture represents a number of items for example a 😊 could represent 4 people and half a 😊 would be 2 people.



Data can be presented in a **pie graph** where a circle is divided into sections to represent the data for example:

- **NUMERIC PATTERNS**

Numeric patterns usually have a **rule** to follow to find the next number in the pattern. Always try to determine the rule by using a table. Go back to Term 2 content revision for more on this.

- **MULTIPLICATION again!**

Multiple : the answer you get when you multiply two numbers

Factor: divides exactly into another number

- **PRACTICE EXERCISE #4**

Division is the inverse (opposite) of multiplication and multiplication is the inverse of division.

Use the inverse operation to check if these sums are correct:

1. $4112 \div 36 = 114$
2. $989 \div 52 = 19$
3. $782 \div 45 = 17$
4. $5005 \div 38 = 131 \text{ rem } 27$
5. $3333 \div 99 = 33 \text{ rem } 70$

● **PRACTICE EXERCISE # 5**

1. To train for the comrades Marathon, an athlete has to run 112km /week.
 - a. If he is in training for 6 months before the marathon, how many kilometres does he run during training?
 - b. The same athlete runs at a rate of about 1km in 5 minutes. How much time does the athlete spend running each week? Give your answer in hours and minutes.
2. At a festival a pizza stall sells a slice of pizza for R11.
 - a. How much money do they make if they sell 320 pieces of pizza?
 - b. If 8 slices make up one pizza – how many whole pizzas did they sell?
3. Super – duper cleaning services pay their workers R23/h. How much can a cleaner earn in:
 - a. An 8 hour day
 - b. A five-day week
 - c. A 21- day month