

play! Mathematics | Grade 5

Term 3 Summary

- HOW TO USE? -

Option 1: Print out and simply give to your child to study.

Option 2: Ask your child each question and they must answer you verbally. In some cases, they may need a pen and paper to help explain the answer.

This option is highly recommended!

As a child explains each answer verbally:

- It will help them to commit it to memory. 😊
- You will easily be able to tell if they actually understand it or not.
 - If yes, continue. Yay!
 - If not, the topic must be revised.
 - Look at Term 1 + Term 2 work if necessary.

- PLEASE NOTE: THIS IS A SUMMARY -

- It does not cover all of the work that must be studied.
- It does not replace practicing in your Play! Maths Book or schoolbook.



SECTIONS COVERED

1.	2.	3.	4.
Common Fractions	Mass	Whole Numbers	Addition & Subtraction

5.	6.	7.
2-D Shapes	Data Handling	Multiplication

Part 1: Common Fractions

1. How do you write “five eighths” in symbol form?

You write 5 over 8 like this: $\frac{5}{8}$

The 5 goes above the fraction line and the 8 goes below the fraction line.

2. Explain what a numerator and a denominator is.

1. Study: Fraction = $\frac{\text{numerator}}{\text{denominator}}$

For example: In the fraction $\frac{5}{6}$, 5 is the numerator and 6 is the denominator.

Denominator

In any fraction, the number written below the fraction line is called the denominator.

The denominator tells us into how many equal parts the whole has been divided into.

Numerator

The number written above the fraction line is called the numerator.

The numerator tells us how many of the equal parts into which the whole has been divided, are taken.

3. There are 2 red and 3 blue balls in a bag.

What fraction of the balls in the bag are blue?

There are 5 balls in total. 3 of the 5 balls are blue.

This means that 3 fifths of the balls in the bag are blue.

4. Explain why 2 thirds is bigger than 1 third.

“Thirds” means that we divide a whole into 3 equal parts.

2 thirds means 2 of the 3 equal parts are taken.

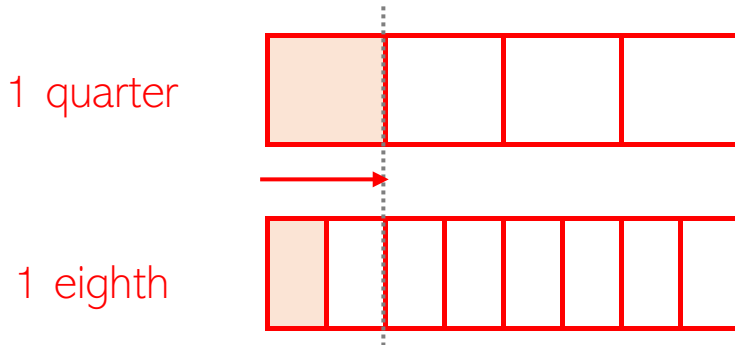


1 third means only 1 of the 3 equal parts are taken.



5. Explain why 1 quarter is bigger than 1 eighth.

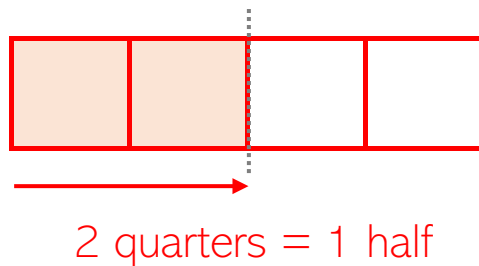
Dividing 1 whole into 4 equal parts (quarters) means that the parts are bigger than if the whole is divided into 8 equal parts (eighths).



6. Explain why 1 half is equal to 2 quarters.

If we divide 1 whole into 4 equal parts, we get quarters.

If we shade 2 quarters, we easily see that it is equal to 1 half of the whole.

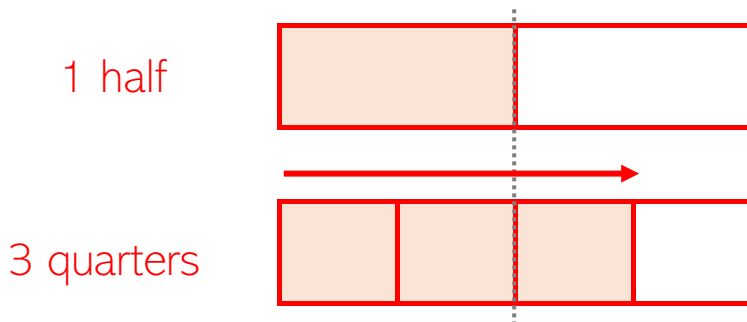


7. Which fraction is bigger, 1 half or 3 quarters?

$\frac{1}{2}$ is equal to $\frac{2}{4}$. [In words, 1 half is equal to 2 quarters.]

3 quarters is bigger than 2 quarters

Thus: 3 quarters is bigger than 1 half.



These topics are covered in a **fun + easy** way in our **Play! Maths books.**



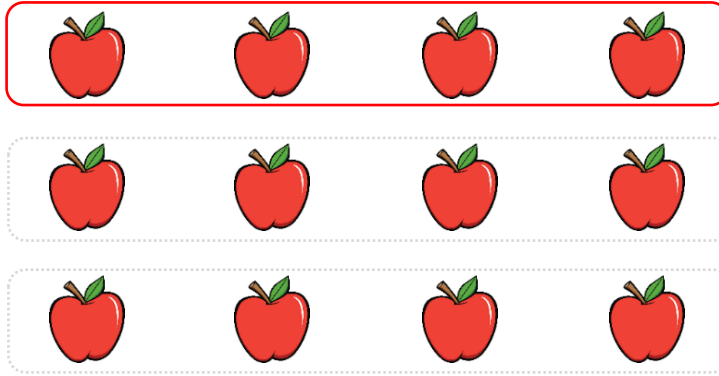
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8. a) Explain how you calculate 1 third of a number.

You divide the number into 3 equal parts and take 1 of the parts.

- b) Calculate 1 third of 12.

1 third of 12 equals 4 because $12 \div 3 = 4$.



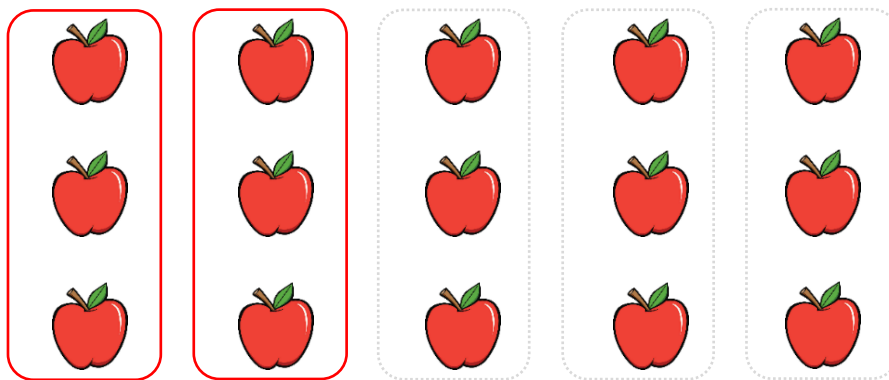
9. a) Explain how you calculate 2 fifths of a number.

You divide the number into 5 equal parts and take 2 of the parts.

- b) Calculate 2 fifths of 15.

1 fifth of 15 = 3 [because $15 \div 5 = 3$]

Thus 2 fifths of 15 = $2 \times 3 = 6$



10. Calculate 3 quarters of R80.

1 quarter of R80 = R20 [because $R80 \div 4 = R20$]

Thus 3 quarters of R80 = $3 \times R20 = R60$

11. What is the “rule” when we add or subtract fractions?

a) When we add fractions, we never add the denominators.

$$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}. \quad \text{It is not equal to } \frac{4}{10}.$$

b) When we subtract fractions, we never subtract the denominators.

$$\frac{3}{5} - \frac{1}{5} = \frac{2}{5}. \quad \text{It is not equal to } \frac{2}{0}.$$

12. 1 third + 1 third = _____ thirds [1 third plus 1 third equals how many thirds?]

$$1 \text{ third} + 1 \text{ third} = 2 \text{ thirds}$$



13. 3 quarters + 1 quarter = _____ [3 quarters plus 1 quarter is equal to _____ ?]

$$3 \text{ quarters} + 1 \text{ quarter} = 4 \text{ quarters} = 1 \text{ whole}.$$



14. 1 whole - 3 eighths = _____ [1 whole minus 3 eighths is equal to _____ ?]

$$1 \text{ whole} = 8 \text{ eighths thus } 8 \text{ eighths} - 3 \text{ eighths} = 5 \text{ eighths}.$$

15. How do you write equivalent fractions? Give an example.

To write equivalent fractions, multiply the “top” and the “bottom” of a fraction by the same number. This is the same as multiplying the fraction by 1.

Examples: a) $\frac{2}{3} \times \frac{4}{4} = \frac{8}{12}$ b) $\frac{1}{5} \times \frac{3}{3} = \frac{3}{15}$

OR

To write equivalent fractions, divide the “top” and the “bottom” of a fraction by the same number. This is the same as dividing the fraction by 1.

Examples: a) $\frac{6}{9} \div \frac{3}{3} = \frac{2}{3}$ b) $\frac{6}{24} \div \frac{6}{6} = \frac{1}{4}$

16. Explain what it means for a fraction to be in the simplest form.

What is “8 twelfths” in its simplest form?

A fraction is in its simplest form when the “top” and “bottom” cannot be any smaller, while still being whole numbers.

Let’s write eight twelfths in its simplest form:

$\frac{8}{12}$

Option 1: Divide by the biggest number that fits exactly into 8 and 12.

$$\frac{8}{12} \div \frac{4}{4} = \frac{2}{3}$$

Option 2: Keep dividing by a small number that fits into the “top” and the “bottom” exactly. Repeat until you can’t go any further.

$$\frac{8}{12} \div \frac{2}{2} = \frac{4}{6} \div \frac{2}{2} = \frac{2}{3}$$

4 sixths is in a “simpler form”, but it is not in the simplest form.

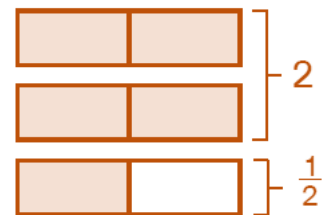
Let’s picture it:

8 twelfths = 2 thirds

17. What is a mixed number? Give an example.

The number $2\frac{1}{2}$ is said “two and one half”.

It is called a mixed number because it is a combination of a whole number and a common fraction.



More examples of mixed numbers are:

- a) One and two thirds $\rightarrow 1\frac{2}{3}$ b) Three and four fifths $\rightarrow 3\frac{4}{5}$

18. What is an improper fraction? Give an example.

4 thirds is written $\frac{4}{3}$.



$$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \frac{4}{3}$$

- It is an improper fraction.
- The numerator is bigger than the denominator.

19. How many halves are there in:

- a) 1 whole? **There are 2 halves in 1 whole.**
- b) 2 wholes? **There are 4 halves in 2 wholes.** [Think: $2 \times \underline{2 halves} = 4 halves$]
- b) 5 wholes? **There are 10 halves in 5 wholes.** [Think: $5 \times \underline{2 halves} = 10 halves$]

20. How many quarters are there in:

a) 1 whole? **There are 4 quarters in 1 whole.**

b) 3 wholes? **There are 12 quarters in 3 wholes.** [Think: $3 \times \underline{4 \text{ quarters}} = 12 \text{ quarters}$]

21. How do you change a mixed number like $1 \frac{2}{3}$ into an improper fraction?

We are working with thirds. 1 whole is equal to 3 thirds.

Therefore $1 \frac{2}{3} = 3 \text{ thirds} + 2 \text{ thirds} = 5 \text{ thirds}$.

We write 5 thirds as $\frac{5}{3}$ in improper fraction form.

22. How do you change a mixed number like $2 \frac{1}{4}$ into an improper fraction?

We are working with quarters. 2 wholes = $2 \times 4 \text{ quarters} = 8 \text{ quarters}$.

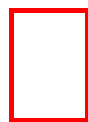
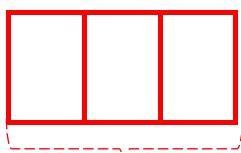
Therefore $2 \frac{1}{4} = 8 \text{ quarters} + 1 \text{ quarter} = 9 \text{ quarters}$.

We write 9 quarters as $\frac{9}{4}$ in improper fraction form.

23. How do you change an improper fraction like $\frac{4}{3}$ into a mixed number?

We have 4 thirds.

We know that 3 thirds make 1 whole.



There is 1 third "left".

**3 thirds
= 1 whole**

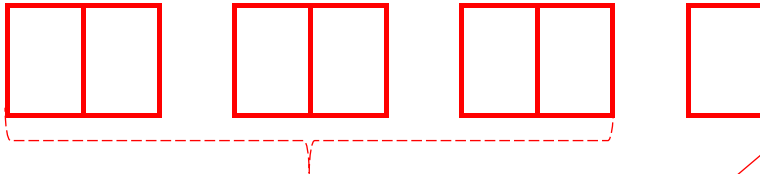
Therefore we write $\frac{4}{3}$ as $1 \frac{1}{3}$ as a mixed number.



24. How do you change an improper fraction like $\frac{7}{2}$ into a mixed number?

We have 7 halves.

We know that 2 halves make 1 whole.



There is 1 half "left".

$$\begin{aligned} & 2 \text{ halves} + 2 \text{ halves} + 2 \text{ halves} \\ & = 1 \text{ whole} + 1 \text{ whole} + 1 \text{ whole} \\ & = 3 \text{ wholes.} \end{aligned}$$

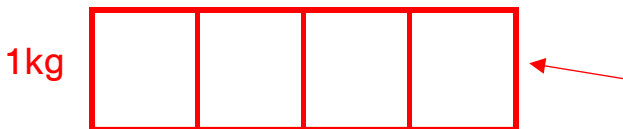
Therefore we write $\frac{7}{2}$ as $3\frac{1}{2}$ as a mixed number.

25. There is $\frac{3}{4}$ kg of flour in a bag which can hold 2kg of flour.
How much flour is needed to fill the bag?



We must add $\frac{1}{4}$ kg to the $\frac{3}{4}$ kg of flour to get 1 kilogram of flour.

The bag can hold 2kg.



Therefore we must add another 1kg.

Answer: This means that $1\frac{1}{4}$ kg of flour is needed to fill the bag.



Part 2: Mass

1. What does “mass” mean?

Which units do we use to measure it?

The mass of an object tells us how heavy it is or how much it weighs.

The standard unit for measuring mass is the kilogram (kg).

The mass of smaller articles or objects, are measured in grams (g).

kilo- means thousand → There are 1 000 grams in 1 kilogram.

2. How many grams are there in 1 kilogram?

1kg = 1 000 grams

3. Does a cellphone weigh more than or less than 1 kilogram?

Less than 1 kilogram.

4. How do you change kilograms into grams?

For example, 3 kilograms is equal to how many grams? [3kg = _____ g]

You multiply by 1 000 because there are 1000 grams in every kilogram.

Thus: 3kg = 3 000 g.

5. One half of a kilogram is equal to how many grams? [$\frac{1}{2}$ kg = _____ g]

One half of a kilogram is equal to 500 grams.

Think: 1 half of 1 000g = 500g

6. Three quarters of a kilogram is equal to how many grams? [$\frac{3}{4}$ kg = _____ g]

Think: 1 quarter of 1 000g = 250g

thus 3 quarters of 1 000g = 250g × 3 = 750g

Answer: Three quarters of a kilogram is equal to 750 grams.

7. Which measuring tool would you use to weigh yourself?

A bathroom scale.

8. How much do you weigh?

Answers will vary but make sure it's approximately correct.

For example, "35 grams" or "200kg" is obviously incorrect 😊.

9. Which statement is more accurate?

A block of butter weighs 500g or A block of butter weighs 5kg.

A block of butter weighs 500g.

10. Which is heavier:

a) 1 cup of sand or 1 cup of sawdust? 1 cup of sand.

b) 1kg of rocks or 1kg of feathers? Neither - both weigh 1kg! 😊

11. The mass of 2 apples is 180g.

a) What is the mass of one apple?

$180\text{g} \div 2 = 90\text{g}$. The mass of 1 apple is 90g.

b) What will the mass of three of these apples be?

The mass of 1 apple is 90g.

Thus, the mass of 3 apples will be 3 times as much: $90\text{g} \times 3 = 270\text{g}$.

12. A book weighs half a kilogram.

How many books will weigh 2 kilograms altogether?

Using Doubling:

1 book weighs 500g thus \rightarrow 2 books will weigh 1 000g [1kg]

\rightarrow 4 books will weigh 2 000g [2kg]

or

Using Adding:

$500\text{g} + 500\text{g} + 500\text{g} + 500\text{g} = 2\text{kg}$

This means 4 books will weigh 2kg.

Part 3: Whole Numbers

1. Say this number in words: **20 875**

Twenty thousand eight hundred and seventy-five.

2. The biggest 5-digit number is _____ .

The biggest 5-digit number is 99 999. [It has 5 digits → five 9's.]

3. The smallest 5-digit number, with five different digits is _____ .

The smallest 5-digit number, with five different digits is 10 234.

- The number may not start with “0”. 01234 is incorrect because you cannot say it in words like “Ten thousand, two hundred and thirty-four”.
- 12 345 is also incorrect because 10 234 is smaller than 12 345.

4. $9\ 999 + 1 =$ _____

[Nine thousand, nine hundred and ninety-nine plus one equals ...]

$9\ 999 + 1 = 10\ 000$ [ten thousand]

5. $9\ 999 \times 1 =$ _____

[Nine thousand, nine hundred and ninety-nine times one equals ...]

It stays exactly the same → $9\ 999 \times 1 = 9\ 999$.

6. What is meant by “descending order”?

Descending means “going down” from the biggest to the smallest.

Example: 85, 67, 50, 13 are written in descending order of size

7. What is meant by “ascending order”?

Ascending means “going up” from the smallest to the biggest.

Example: 12, 27, 32, 43 are written in ascending order of size

8. What is an even number?

Even numbers end in 0, 2, 4, 6, or 8. For example, 25 874 is even.

9. The 3 even numbers just after 50 000 are...

50 002 , 50 004, 50 006.

10. What is an odd number?

Odd numbers end in 1, 3, 5, 7, or 9.

For example, 46 285 is odd.

11. The largest 5-digit even number is _____ .

99 999 is the largest 5-digit number but it ends on 9 and is therefore odd.

99 998 is thus the largest 5-digit even number.

12. What is meant by the value of a digit in a number?

Value is how much a digit in a number is worth.

In 42 875 the value of the:

- 4 is 40 000.
- 2 is 2 000.
- 8 is 800.
- 7 is 70.
- 5 is 5.

13. What is meant by the place value of a digit in a number?

Place value tells us the position of a digit in a number.

In other words, it tells us which column (TTh, Th, H, T or U) the digit is in.

In 42 875 the place value of the:

- 4 is TTh
- 2 is Th
- 8 is H
- 7 is T
- 5 is U.



14. What does it mean to write a number in expanded form?

It means that we “split” the TTh, Th, H, T and U.

In expanded form:

$$42\ 875 = 40\ 000 + 2\ 000 + 800 + 70 + 5$$

$$\text{or } 42\ 875 = 4\text{TTh} + 2\text{Th} + 8\text{H} + 7\text{T} + 5\text{U}$$

$$\text{or } 42\ 875 = (4 \times 10\ 000) + (2 \times 1\ 000) + (8 \times 100) + (7 \times 10) + (5 \times 1)$$

15. What does it mean to write a number in short form?

It is the opposite of writing a number in expanded form.

- $40\ 000 + 2\ 000 + 800 + 70 + 5$ in short form is $42\ 875$.

NB: Take note of the order of the place value columns \rightarrow TTh Th H T U

- $40\ 000 + 2\ 000 + 80 + \underline{700} + 5$ in short form is $42\ \underline{785}$.

16. Explain how you round 574 off to the nearest ten.

574 lies between 570 and 580.



- We use the units digit to decide whether to “round up” or “round down”.
- The units digit is a 4. Thus we “round down”.
- Therefore, 574 rounded off to the nearest ten is 570.

17. Explain how you round 2 375 off to the nearest hundred.

2 375 lies between 2 300 and 2 400.

- We use the tens digit to decide whether to “round up” or “round down”.
- The tens digit is a 7. Thus we “round up”.
- Therefore, 2 375 rounded off to the nearest hundred is 2 400.

18. Explain how you round the number 56 684 off to the nearest thousand.

56 684 lies between 56 000 and 57 000.

- We use the hundreds digit to decide whether to “round up” or “round down”.
- The hundreds digit is a 6. Thus we “round up”.
- Therefore, 56 684 rounded off to the nearest thousand is 57 000.

Part 4: Addition and Subtraction

1. $8 + 7$ is equal to...

$$8 + 7 = 15.$$

2. $50 + 90$ is equal to...

$$50 + 90 = 140. \quad [5 \text{ tens} + 9 \text{ tens} = 14 \text{ tens}]$$

3. What happens when you add zero to a number.

It stays exactly the same. For example, $5 + 0 = 5$.

4. How much must be added to 75 to get 100?

$$100 - 75 = 25 \text{ thus } 25 \text{ must be added to } 75 \text{ to } 100.$$

5. Calculate $100 + 200 + 300$.

$$100 + 200 + 300 = 600.$$

6. What does the word “sum” mean in Maths?

When two numbers are added, the answer is called the sum.

Example: The sum of 4 and 5 is 9 because $4 + 5 = 9$.

7. What is the sum of 45 and 35?

$$45 + 35 = 80 \quad [\text{Think: } 45 + 30 = 75 \text{ and } 75 + 5 = 80]$$

8. Can two numbers be added in any order? Explain your answer with an example.

Yes! $4 + 5 = 9$ and $5 + 4 = 9$. Therefore $4 + 5 = 5 + 4$.

9. Calculate $300 + 800$.

$$300 + 800 = 1\,100. \quad [3 \text{ hundreds} + 8 \text{ hundreds} = 11 \text{ hundreds}]$$

10. The sum of three numbers is 15.

Two of the numbers are 5 and 3. What is the third number?

$$5 + 3 + \underline{\quad} = 15 \quad \rightarrow \quad 8 + \underline{\quad} = 15$$

$$\rightarrow 15 - 8 = 7. \quad \text{The third number is } 7.$$

KEEP IT UP!



11. What does the word “difference” mean in Maths?

When one number is subtracted from another number, the answer is called the difference.

Examples:

- The difference between 9 and 5 is 4: $9 - 5 = 4$
- 8 is subtracted from 20 means $20 - 8$ and not $8 - 20$.

12. Why can two numbers not be subtracted in any order?

For example, why is $9 - 4$ not equal to $4 - 9$?

If I have 9 sweets and eat 4 of them, I will have 5 sweets left: $9 - 4 = 5$.

However, if I only have 4 sweets, I cannot eat 9 sweets because there are not enough sweets. Therefore $9 - 4$ is not equal to $4 - 9$.

- The answer to $4 - 9$ will be negative.
- We will learn about negative numbers in Gr 7.

13. What is the difference between 25 and 8?

$$25 - 8 = 17$$

14. Subtract 5 from 500. What is the answer?

$$\text{Start with } 500 \rightarrow 500 - 5 = 495$$

15. Subtract 2 from 2 000. What is the answer?

$$\text{Start with } 2\ 000 \rightarrow 2\ 000 - 2 = 1\ 998$$

16. Work out the answer to $4\ 000 - 260$.
Explain your steps.

260 is equal to $200 + 60$.

So subtract 200 and then 60 in two steps...

Step 1: $4\ 000 - 200 = \underline{3\ 800}$.

Step 2: $\underline{3\ 800} - 60 = 3\ 740$.

17. What is the sum of 6 000 and 9 000?

$$6\ 000 + 9\ 000 = 15\ 000 \quad [\text{Think: } 6\text{Th} + 9\text{Th} = 15\text{Th}]$$

These topics are covered in a **fun + easy** way in our **Play! Maths books.**



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Part 5: 2-D Shapes

1. What does 2-D mean?

It stands for two-dimensions or two-dimensional.

- The two dimensions are “length” and “width”.
- Another word for width is “breadth”.
- 2-D shapes are flat whereas 3-D objects also have “height”.



2. Describe a triangle.

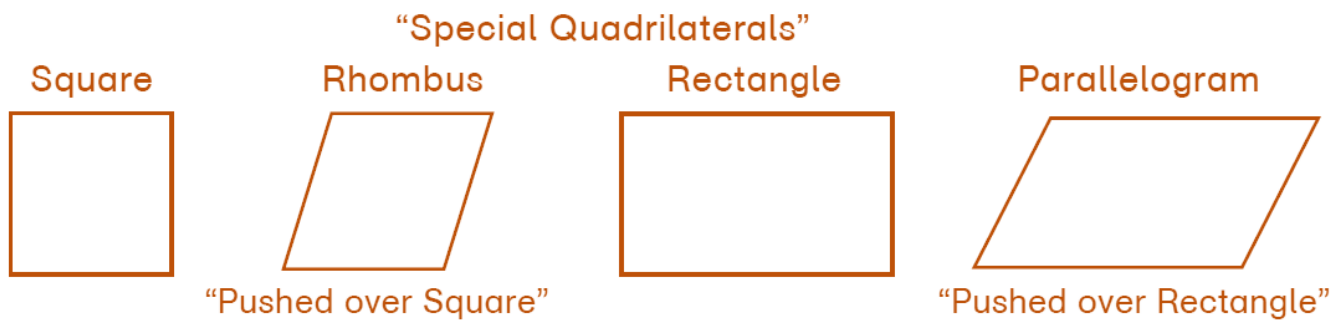
“Tri” means 3. A triangle is a 2-D shape with 3 sides and 3 angles.

3. What is a quadrilateral? Give 4 examples of shapes that are quadrilaterals.

A closed 2-D shape with 4 straight sides (and 4 corners).

Examples of “special” quadrilaterals are:

Squares and Rectangles, Rhombuses and Parallelograms.



4. Describe a polygon by naming 3 characteristics.

1. A polygon is a 2-D shape.
2. It only has straight sides.
3. The shape must be “closed”.

5. Is a circle a polygon?

No – it has one curved side.

6. Is a cube a polygon?

No – it is 3-D.

7. Which number does each prefix describe?

a) Hex- 6

b) Oct- 8

c) Hept- 7

d) Pent- 5

8. Does a polygon have more sides or more angles?

Neither.

A polygon has the same number of sides and angles.

Think of a pentagon, it has 5 sides and 5 angles.

9. How many sides does a heptagon have?

A heptagon has 7 sides.

10. What is the name of a polygon with 8 sides?

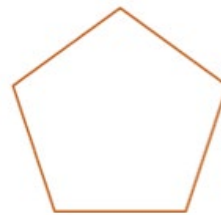
An octagon.

11. What makes a polygon regular?

What is a regular polygon?

a) All sides have the same length.

b) All angles are equal in size.



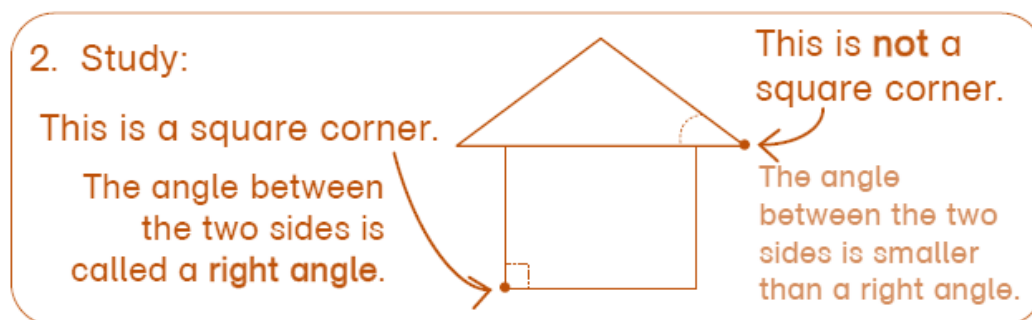
Regular pentagon
5 equal sides



Irregular pentagon
5 sides

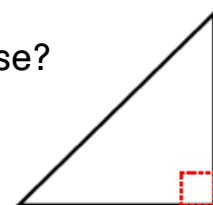
12. What is a right angle?

When one arm stands “right up” on another arm and makes a square corner, a right angle is formed between the arms.



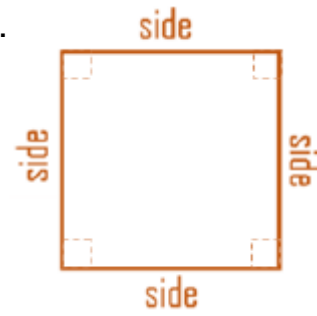
13. A triangle can never have a right angle. Is this true or false?

False. A triangle can have 1 right angle.



14. Describe a square in as much detail as possible.

- A square has: a) 4 equal straight sides.
- b) 4 right angles.



15. Picture the point of a pizza slice in your head.

Is the angle formed between the two sides of the pizza bigger, smaller or equal to a right angle?

It is smaller than a right angle.



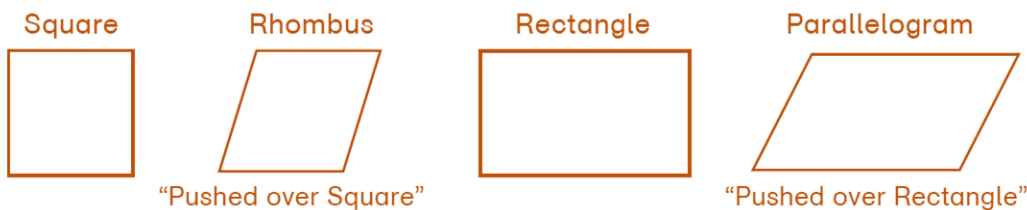
16. When the clock shows 3 o'clock, is the angle formed between the two arms bigger, smaller or equal to a right angle?

It is equal to a right angle.



17. What is the difference between a rhombus and a parallelogram?

- A rhombus has 4 equal sides. It looks like a “pushed over square”.
- A parallelogram has 2 equal lengths and 2 equal widths. It looks like a “pushed over rectangle”.



18. What is the difference between a square and a rhombus?

- A square stands “straight up” because it has 4 right angles.
- A rhombus is “pushed over” because it has 0 right angles.

Part 6: Data Handling

1. What is data?

Data is any information that is collected.

It is gathered by observation, questioning or measurement.

Data is usually organised in graphs or charts for analysis.

2. What are tally marks. How do you write them?

Tally marks are a method for grouping numbers in 5s: |||||





- ||||| || marks mean an item has been counted 7 times.
- ||||| ||| ||| marks mean an item has been counted 13 times.


3. Why is a key so important when reading a pictograph?

The key tells you what each picture means.

For example, in the pictograph below the key tells us that each picture represents **3 learners**. If you don't read this, you will get all the questions relating to the pictograph wrong.

The following pictograph shows the favourite fruit of a group of Grade 4 learners.

Favourite fruit	Number of learners
Apple	
Banana	
Kiwi	
Peach	

KEY:  = 3 learners

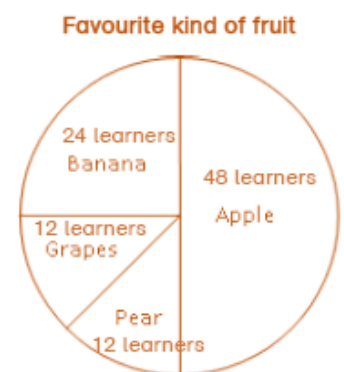
A pictograph is data represented in picture form.

It is important to take note of the key.

4. What is a pie chart?

A pie chart represents data in a circle form.

- The whole circle represents all of the data.
- The fractional parts show the number of people or objects involved in the survey.



The whole circle represents all 96 learners.

5. What is the mode?

The number or item that occurs the most in a data set is called the mode.

To help you remember, "the mode occurs the most".

Part 7: Multiplication

1. 6×7 is equal to...

$$6 \times 7 = 42.$$

2. What must you multiply 8 by to get an answer of 40?

$$\underline{\quad} \times 8 = 40. \quad \text{You must multiply 8 by 5 because } 5 \times 8 = 40.$$

3. What happens when you multiply a number by 1?

It stays exactly the same. For example, $5 \times 1 = 5$.

4. What happens when you multiply a number by 10?

It becomes 10 times bigger. For example, $5 \times 10 = 50$.

It does not mean that we “add zero to the number”.

Adding 0 to 5 means: $5 + 0 = 5$.

5. $999 \times 10 = \underline{\hspace{2cm}}$ [Nine hundred and ninety-nine times ten equals ...]

It becomes ten times bigger $\rightarrow 999 \times 10 = 9\,990$.

6. Anna has R35. John has twice as much money as Anna.

How much money does John have?

Twice as much as R35 = $R35 \times 2 = R70$. [Think $R35 + R35$]

7. 60 multiplied by 9 is equal to...

$$6 \times 9 = 54 \quad \text{therefore } \underline{60} \times \underline{9} = \underline{540}.$$

8. What does the word “product” mean in Maths?

When two numbers are multiplied, the answer is called the product.

- The product of 2 and 3 is 6 because $2 \times 3 = 6$.
- The product of 8 and 10 is 80 because $8 \times 10 = 80$.



9. What is the product of 12 and 40?

$$12 \times 4 = 48 \text{ therefore } 12 \times 40 = 480.$$

10. Can two numbers be multiplied in any order? Explain.

Yes! Examples: $3 \times 6 = 18$ and $6 \times 3 = 18$ therefore $3 \times 6 = 6 \times 3$.

11. What are multiples?

Multiples are numbers that you get when multiplying a number by 1, 2, 3, 4 etc...

Multiples of a number start with the number itself and get bigger...

Examples:

- The first five multiples of 3 are 3, 6, 9, 12, 15.

This is because $1 \times 3 = 3$, $2 \times 3 = 6$, $3 \times 3 = 9$, $4 \times 3 = 12$, $5 \times 3 = 15$

- The first five multiples of 4 are 4, 8, 12, 16, 20.

This is because $1 \times 4 = 4$, $2 \times 4 = 8$, $3 \times 4 = 12$, $4 \times 4 = 16$, $5 \times 4 = 20$

12. What are the first 5 multiples of 7?

Start at 7 and count forward in 7s: 7, 14, 21, 28, 35.

13. Explain what factors are. What are the factors of 12?

Factors of a number are numbers that fit an exact number of times into the number. Think “Factors Fit in”.

For example, the factors of 12 are 1, 2, 3, 4, 6, 12.



- Factors come in pairs $\rightarrow 1 \times 12$, 2×6 and 3×4 .
- The first factor pair of every number is 1 and the number itself.

Don't confuse this with multiples of 12.

Multiples of 12 start at 12 and get bigger: 12, 24, 36, 48 etc.

14. What happens when you multiply a number by 0?

It equals zero. For example, $3 \times 0 = 0$. [Think 3 zeros = $0 + 0 + 0 = 0$.]

15. Calculate: $11 \times 10 \times 0 =$ _____

$11 \times 10 \times 0 = 0$ [Any number multiplied by 0 equals 0]

16. Calculate: $11 \times 10 \times 1 =$ _____

$11 \times 10 \times 1 = 110$ [Any number multiplied by 1 stays the same]

17. What is the product of 40 and 30?

$4 \times 3 = 12$ thus $40 \times 30 = 1\ 200$

18. When a certain number is multiplied by 50 the answer is 300.

What is the number?

___ $\times 50 = 300$. The number is 6 because $6 \times 50 = 300$

19. What is the product of 2, 3 and 4?

$2 \times 3 \times 4 = 6 \times 4 = 24$

20. Can three numbers be multiplied in any order? Explain.

Yes! $2 \times 3 \times 4 = 24$

and $4 \times 2 \times 3 = 24$ therefore $2 \times 3 \times 4 = 4 \times 2 \times 3$.

21. What is the 4th multiple of 25?

$4 \times 25 = 100$ or count in 25s: 25, 50, 75, 100.

22. What is the product of 12 and 12?

Think: $10 \times 12 = 120$

and $2 \times 12 = 24$

thus $12 \times 12 = 120 + 24 = 144$.

KEEP IT UP!

