

Name:

Form:

# MATHS FUNDAMENTAL KNOWLEDGE QUIZ BOOKLET

**Year 8**  
**Term 2 (January 2026)**



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## Unit 1: Numerical Skills

Definition	Answer
1. Name given for whole numbers including zeros.	Integer
2. The value of a digit relating to its position in a number.	Place Value
3. Any whole number that can be divided by 2 without a remainder.	Even Number
4. Any whole number that leaves a remainder when divided by 2.	Odd Number
5. Finding an approximate answer by rounding.	Estimating
6. Ordering smallest to largest.	Ascending
7. Ordering largest to smallest.	Descending
8. The result of multiplying a number by itself $\blacksquare^2$ .	Square Number
9. When one number or quantity, is not equal to another $< > \leq \geq$	Inequality
10. The inverse of squaring a number to find its original factor $\sqrt{\quad}$	Square Root



## Unit 2: Algebra Notation

Definition	Answer
1. A symbol (often a letter) whose value can vary.	Variable
2. A single number, variable or numbers and variables multiplied together.	Term
3. A mathematical statement that contains one or more terms combined by operations.	Expression
4. A non-changing value.	Constant
5. A number (or a symbol representing a constant value) that multiplies a variable in an algebraic expression.	Coefficient
6. A mathematical statement in which two expressions are connected by an equal sign.	Equation
7. A mathematical relationship or rule, written in symbols, in which two expressions are connected by the equals symbol.	Formula
8. The dependent variable in a formula or equation, identifiable by being on its own on one side of the equal sign.	Subject
9. The process by which symbols are replaced by numbers in order to evaluate an expression or formula.	Substitution
10. To find the solution(s) to an equation or problem.	Solve

### Unit 3: Types of Number

Definition	Answer
1. Describing things which follow each other in a particular order, with no interruptions.	Consecutive
2. A positive whole number which is the product of two smaller integers.	Composite Number
3. An integer that divides another integer exactly, without a remainder.	Factor
4. Name given for whole numbers including zeros.	Integer
5. A product of a number and an integer.	Multiple
6. The result of multiplication.	Product
7. The result of division.	Quotient
8. A number that only has two distinct factors, 1 and itself.	Prime
9. Used to describe numbers or properties which are shared by different entities.	Common
10. Describing a value, set or shape which is the only one of its kind.	Unique

## Unit 4: Expanding and Factorising

Definition	Answer
1. An algebraic expression with two different terms, connected by a addition or subtraction.	Binomial
2. A horizontal line, either above or below a mathematical expression, used to group or indicate that the expression should be treated as a single unit.	Vinculum
3. The number to be divided in a division.	Dividend
4. The number by which the dividend is divided in a division.	Divisor
5. To remove the brackets from an expression by multiplying terms and simplifying as necessary.	Expand
6. The procedure of inserting brackets into an expression by.	Factorise
7. An algebraic expression with one term.	Monomial
8. The number or expression above the vinculum in a fraction.	Numerator
9. The number or expression below the vinculum in a fraction.	Denominator
10. To write an expression or fraction in a more concise form using the rules of arithmetic and/or algebra.	Simplify

## Unit 5: Calculating

Definition	Answer
1. Name given for whole numbers including zeros	Integer
2. The property of giving the same result irrespective of the order of numbers within a calculation e.g. $1 + 2 = 2 + 1$	Commutative
3. Describing things which follow each other in a particular order, with no interruptions.	Consecutive
4. The result of a subtraction	Difference
5. Finding an approximate answer by rounding	Estimate
6. The first number in a subtraction.	Minuend
7. The second number in a subtraction.	Subtrahend
8. The result of an addition.	Sum
9. Ordering smallest to largest	Ascending
10. Ordering largest to smallest	Descending

## Unit 6: Perimeter and Shape

Definition	Answer
1. Next to or adjoining.	Adjacent
2. A shape made up of two or more geometric shapes.	Compound shape
3. A triangle of equal side lengths and angles.	Equilateral
4. A triangle or trapezium having two sides of equal length.	Isosceles
5. A quadrilateral with two pairs of parallel sides and opposite sides equal length.	Parallelogram
6. The total distance around the outside of a closed 2D shape.	Perimeter
7. A plane shape (two-dimensional, flat) with at least 3 straight sides and angles.	Polygon
8. A two-dimensional shape with four sides.	Quadrilateral
9. A shape having all sides and angles of equal length.	Regular
10. A triangle where all sides and angles are unequal.	Scalene

## Unit 7: Properties of Circles

**Calculate**

**Formula**

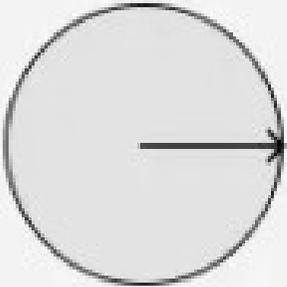
1. Area of circle.

$$\pi \times r^2$$

2. Circumference of Circle.

$$\pi \times d$$

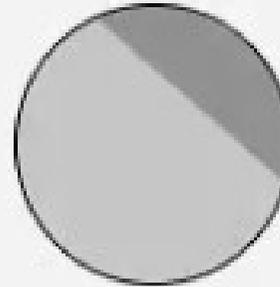
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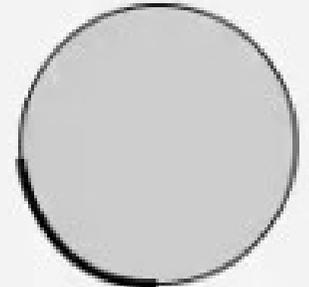
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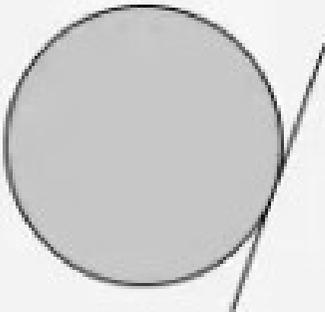
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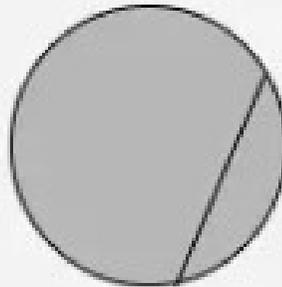
4. ARC



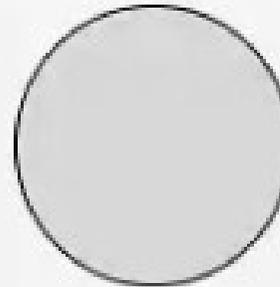
5. TANGENT



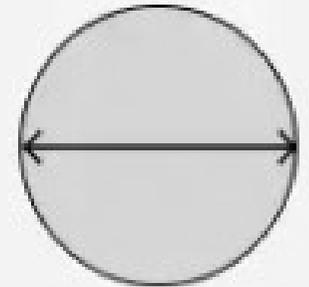
6. CHORD



7. CIRCUMFERENCE



8. DIAMETER



## NUMERACY 1

Definition	Terminology
1. Write the number nine thousand three hundred and seventy-one in digits	9371
2. Write the number 444 in words	Four hundred and forty-four
3. What is the value of <b>8</b> in the number 89	80 or Eighty
4. What does this Mathematical symbol mean? $>$	Greater than
5. The first five _____ numbers are 2, 4, 6, 8, 10	Even
6. The first five _____ numbers are 1, 3, 5, 7, 9	Odd
7. The first five _____ numbers are 1, 4, 9, 16, 25	Square
8. The first five _____ numbers are 2, 3, 5, 7, 11	Prime
9. What does B stand for in BIDMAS?	Brackets
10. What does I stand for in BIDMAS?	Indices



## NUMERACY 2

Definition	Terminology
1. Write the number twenty thousand four hundred and fifteen in digits	20415
2. Write the number 3000000 in words	Three million
3. What is the value of <b>8</b> in the number 58000	8000 or Eight thousand
4. What does this Mathematical symbol mean? $<$	Less than
5. List the first five even numbers	2, 4, 6, 8, 10
6. List the first five odd numbers	1, 3, 5, 7, 9
7. List the first five square numbers	1, 4, 9, 16, 25
8. List the first five prime numbers	2, 3, 5, 7, 11
9. What does D stand for in BIDMAS?	Divide
10. What does M stand for in BIDMAS?	Multiply



## NUMERACY 3

Definition	Terminology
1. Write the number three thousand seven hundred and four in digits	3704
2. Write the number 14062 in words	Fourteen thousand and sixty-two
3. What is the value of <b>8</b> in the number 12809	800 or Eight hundred
4. The Mathematical word 'inverse' means	Opposite
5. The inverse of addition is	Subtraction
6. The inverse of multiplication is	Division
7. The top of a fraction is called the	Numerator
8. The bottom of a fraction is called the	Denominator
9. What does A stand for in BIDMAS?	Add
10. What does S stand for in BIDMAS?	Subtract



## TERM 2 – PAGE 1 – Fractions

Definition	Answer
1. The number 2 in the fraction is $\frac{2}{7}$ is called the	Numerator
2. The number 7 in the fraction is $\frac{2}{7}$ is called the	Denominator
3. A fraction represents which mathematical operation?	Division
4. What can be used to simplify a fraction?	The Highest Common Factor (HCF)
5. What do you need before you can add or subtract fractions?	A common denominator
6. What is the first step to calculate $\frac{1}{5} \times \frac{2}{7}$ ?	$\frac{1 \times 2}{5 \times 7}$
7. 5 is the ____ of $\frac{1}{5}$	Reciprocal
8. What is the method we use to divide fractions?	Multiply by the reciprocal
9. What is the first step to calculate $\frac{1}{5} \div \frac{3}{8}$ ?	$\frac{1}{5} \times \frac{8}{3}$
10. 'Divide by the denominator and multiply by the numerator' are the steps used to calculate ...	Fraction of an amount

## TERM 2 – PAGE 2 – Factors, multiples and prime numbers

Definition	Answer
1. The first five _____ numbers are 2, 3, 5, 7, 11	Prime
2. The _____ of 6 are 1, 2, 3 and 6	Factors
3. The first five _____ of 6 are 6, 12, 18, 24 and 30	Multiples
4. The _____ of 4 and 6 is 2	Highest Common Factor (HCF)
5. The _____ of 4 and 6 is 12	Lowest Common Multiple (LCM)
6. The mathematical word for a whole number	Integer
7. The product of two integers	Composite number
8. The process of expressing number as a product of its primes	Prime factor decomposition
9. What is the only even prime number?	2
10. What button do you press on the calculator to find the product of prime factors?	The FORMAT button

**TERM 2 – PAGE 3 – Algebra**

<b>Definition</b>	<b>Answer</b>
1. What is the inverse operation of addition?	Subtraction
2. What is the inverse operation of multiplication?	Division
3. What is the inverse operation of squaring?	Square rooting
4. $a + a + a$ is equivalent to	$3a$
5. $a \times a \times a$ is equivalent to	$a^3$
6. Simplify $3a + 4a + 5b - 2b$	$7a + 3b$
7. Simplify $3x \times 5x$	$15x^2$
8. Simplify $3a \times 4b$	$12ab$
9. When $x = 4$ Find the value of $3x + 2$	$3 \times 4 + 2 = 14$
10. How to expand a single bracket	Multiply everything inside the bracket by the outside