

Name:

Form:

MATHS FUNDAMENTAL KNOWLEDGE QUIZ BOOKLET

Year 9
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

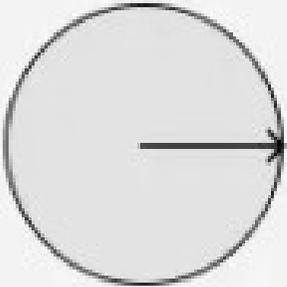
1. Area of circle.

$$\pi \times r^2$$

2. Circumference of Circle.

$$\pi \times d$$

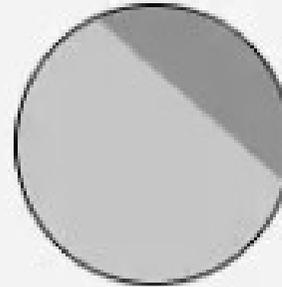
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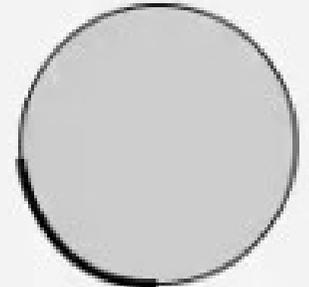
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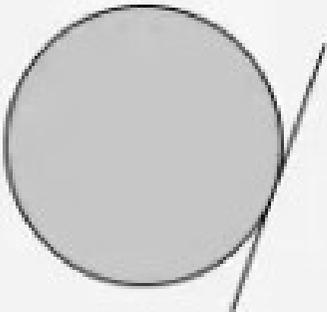
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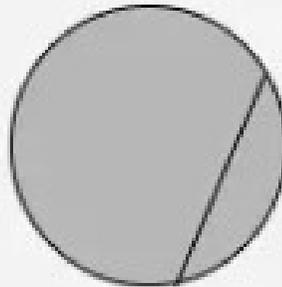
4. ARC



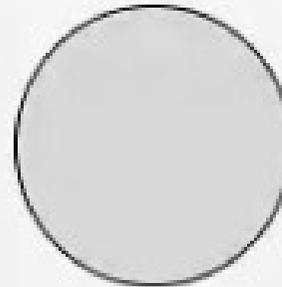
5. TANGENT



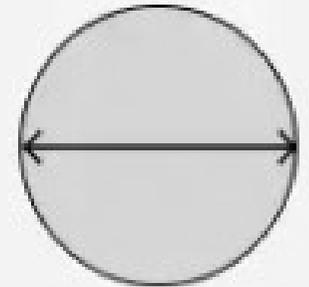
6. CHORD



7. CIRCUMFERENCE



8. DIAMETER



Unit 8: Probability

Definition/Question	Answer
1. The probabilities of all possible outcomes of an event always add up to	1 or 100%
2. How do we represent probabilities?	Fraction or Decimal
3. What is the estimated probability of an event happening called?	Relative frequency
4. How do you calculate the relative frequency of an event?	$\frac{\text{Number of times the event happened}}{\text{Total number of trials}}$
5. How can you improve the accuracy of an estimated probability?	Increase the number of trials
6. What should each branch in a tree diagram sum to?	1
7. How do you calculate the probability across branches in a tree diagram?	Multiply the probabilities
8. What does $A \cup B$ mean?	A or B
9. What does $A \cap B$ mean?	A and B, the intersection of the Venn diagram
10. What does A' mean?	The complement of A, not A.

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 8 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 8 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 8 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



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TERM 2 – PAGE 1 – Algebra Revision

Definition	Answer
1. A symbol (often a letter) whose value can vary	Variable
2. $4x - 3 = 14$ In this equation “ $4x$ ” is known as a	Term
3. $4x - 3$ Is an example of an	Expression
4. $4x - 3 = 14$ Is an example of an	Equation
5. $4x - 3 < 14$ Is an example of an	Inequality
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 For example, $A = \frac{1}{2}(a + b)h$	Formula
8. $y = \frac{4x - 3}{7}$ What is the subject of the equation?	y
9. The process by which symbols are replaced by numbers	Substitution
10. To find the solution to an equation or problem	Solve

TERM 2 – PAGE 2 – Index Laws

Definition/Question	Answer
1. What is the base of the index n^a	n
2. $n^a \times n^b$	n^{a+b}
3. $n^a \div n^b$	n^{a-b}
4. n^0	1
5. $\frac{n^a}{n^b}$	n^{a-b}
6. $(n^a)^b$	$n^{a \times b}$
7. $(2n^a)^b$	$2^b n^{a \times b}$
8. What is the reciprocal of $\frac{3}{5}$	$\frac{5}{3}$ or $1\frac{2}{3}$
9. n^{-a}	$\left(\frac{1}{n}\right)^a$
10. $n^{\frac{1}{a}}$	$\sqrt[a]{n}$



TERM 2 – PAGE 3 – Probability

Definition	Answer
1. What is the notation to represent <i>The probability of A</i>	$P(A)$
2. What is the mathematical word for a number or amount?	Frequency
3. What is the probability that the day after Tuesday is Wednesday?	Certain / 1 / 100%
4. What is the probability of rolling a 7 on a fair six-sided dice?	Impossible / 0 / 0%
5. What is the probability of a coin landing on Heads?	Even chance / 0.5 / 50%
6. How many cards are in a standard deck of playing cards?	52
7. How many even numbers are on a fair six-sided dice?	3 even numbers (2, 4, 6)
8. Set notation – What does A' mean?	Not A
9. Set notation – What does $A \cap B$ mean?	A and B
10. Set notation – What does $A \cup B$ mean?	A or B