Quest

Spring term assessment content domain coverage

Year 7 Maths (calculator)

Assessment overview

Content domain	Total
Number	10
Algebra	10
Ratio, proportion and rates of change	5
Geometry and measures	6
Statistics	5

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Question breakdown

Q	Reference	
1	7A8	work with coordinates in all four quadrants
2	7A1	use and interpret algebraic notation, including: ab in place of a×b; 3y in place of y+y+y and 3×y; a^2 in place of a×a; a^3 in place of a×a×a; a^2b in place of a×a×b; a/b in place of a÷b; coefficients written as fractions rather than as decimals; brackets
3	7A4	simplify and manipulate algebraic expressions to maintain equivalence by: collecting like terms; multiplying a single term over a bracket; taking out common factors; expanding products of two or more binomials
4	7N10	define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%
5	7A7	use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement)
6	7A3 7G10	understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles
7	7G12	derive and use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons
8	7R10	use compound units such as speed, unit pricing and density to solve problems
9	7S1	describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)
10	7N8	interpret and compare numbers in standard form A x 10^n, 1≤A<10, where n is a positive or negative integer or zero
11	7S1	describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)
12	7N10 7R1	define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100% change freely between related standard units [for example time, length, area, volume/capacity, mass]
13	7R8	solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics

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14	7A1	use and interpret algebraic notation, including: ab in place of a×b; 3y in place of y+y+y and 3×y; a^2 in place of a×a; a^3 in place of a×a×a; a^2b in place of a×a×b; a/b in place of a÷b; coefficients written as fractions rather than as decimals; brackets
15	7S1	describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)
16	7R8	solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics
17	7G1	derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)
	7S1	describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)
18	7N4	use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative
	7A2	substitute numerical values into formulae and expressions, including scientific formulae
19	7N12	use standard units of mass, length, time, money and other measures, including with decimal quantities
20	7S3	describe simple mathematical relationships between two variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs
21	7N10	define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%
22	7G1	derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)
23	7N10	define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%
24	7N3	use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property
25	7A1	use and interpret algebraic notation, including: ab in place of a×b; 3y in place of y+y+y and 3×y; a^2 in place of a×a; a^3 in place of a×a×a; a^2b in place of a×a×b; a/b in place of a÷b; coefficients written as fractions rather than as decimals; brackets

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Q	Reference	
26	7N10	define percentage as ‘number of parts per hundred’, interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%
27	7A6	model situations or procedures by translating them into algebraic expressions or formulae and by using graphs
	7G1	derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)
28	7N10	define percentage as ‘number of parts per hundred’, interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%
29	7A2	substitute numerical values into formulae and expressions, including scientific formulae
30	7R8	solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics
	7G1	derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)