Number theory

A.1 Prime or composite

A.2 Prime factorisation

A.3 Multiplicative inverses

A.4 Divisibility rules

A.5 Highest common factor

A.6 Lowest common multiple

A.7 HCF and LCM: word problems

A.8 Scientific notation

A.9 Compare numbers written in scientific notation

A.10 Classify numbers

Integers

B.1 Understanding integers

B.2 Integers on number lines

B.3 Graph integers on horizontal and vertical number lines

B.4 Absolute value and opposite integers

B.5 Compare and order integers

Operations with integers

C.1 Integer addition and subtraction rules

C.2 Add and subtract integers using counters

C.3 Add and subtract integers

C.4 Complete addition and subtraction sentences with integers

C.5 Add and subtract integers: word problems

C.6 Integer multiplication and division rules

C.7 Multiply and divide integers

C.8 Complete multiplication and division sentences with integers

C.9 Evaluate numerical expressions involving integers

Decimals

D.1 Decimal numbers review

D.2 Compare and order decimals

D.3 Decimal number lines

D.4 Round decimals

Operations with decimals

E.1 Add and subtract decimals

E.2 Add and subtract decimals: word problems

E.3 Multiply decimals

E.4 Multiply decimals and whole numbers: word problems

E.5 Divide decimals

E.6 Divide decimals by whole numbers: word problems

E.7 Estimate sums, differences and products of decimals

E.8 Add, subtract, multiply and divide decimals: word problems

E.9 Multi-step inequalities with decimals

E.10 Maps with decimal distances

E.11 Evaluate numerical expressions involving decimals

Fractions and mixed numbers

F.1 Understanding fractions: word problems

F.2 Equivalent fractions

F.3 Write fractions in lowest terms

F.4 Fractions: word problems with graphs and tables

F.5 Lowest common denominator

F.6 Compare and order fractions

F.7 Compare fractions: word problems

F.8 Convert between mixed numbers and improper fractions

F.9 Compare mixed numbers and improper fractions

F.10 Round mixed numbers

Operations with fractions

G.1 Add and subtract fractions

G.2 Add and subtract fractions: word problems

G.3 Add and subtract mixed numbers

G.4 Add and subtract mixed numbers: word problems

G.5 Inequalities with addition and subtraction of fractions and mixed numbers

G.6 Estimate sums and differences of mixed numbers

G.7 Multiply fractions and whole numbers

G.8 Multiply two fractions using models

G.9 Multiply fractions

G.10 Multiply mixed numbers

G.11 Multiply fractions and mixed numbers: word problems

G.12 Divide whole numbers and unit fractions

G.13 Divide fractions

G.14 Divide mixed numbers

G.15 Divide fractions and mixed numbers: word problems

G.16 Estimate products and quotients of fractions and mixed numbers

G.17 Add, subtract, multiply and divide fractions and mixed numbers: word problems

G.18 Evaluate numerical expressions involving fractions

Rational numbers

H.1 Identify rational numbers

H.2 Convert between decimals and fractions or mixed numbers

H.3 Compare rational numbers

H.4 Put rational numbers in order

H.5 Add and subtract rational numbers

H.6 Apply addition and subtraction rules

H.7 Multiply and divide rational numbers

H.8 Apply multiplication and division rules

Exponents

I.1 Understanding exponents

I.2 Evaluate exponents

I.3 Solve equations with variable exponents

I.4 Exponents with negative bases

I.5 Exponents with decimal and fractional bases

I.6 Evaluate numerical expressions involving exponents

Ratios, rates and proportions

J.1 Understanding ratios

J.2 Identify equivalent ratios

J.3 Write an equivalent ratio

J.4 Equivalent ratios: word problems

J.5 Unit rates

J.6 Compare ratios: word problems

J.7 Scale drawings: word problems

J.8 Do the ratios form a proportion?

J.9 Do the ratios form a proportion: word problems

J.10 Solve proportions

J.11 Solve proportions: word problems

J.12 Estimate population size using proportions

J.13 Rate of change

J.14 Constant rate of change

Percents

K.1 What percentage is illustrated?

K.2 Convert between percents, fractions and decimals

K.3 Compare percents to fractions and decimals

K.4 Estimate percents of numbers

K.5 Percents of numbers and money amounts

K.6 Percents of numbers: word problems

K.7 Solve percent equations

K.8 Solve percent equations: word problems

Consumer maths

L.1 Add, subtract, multiply and divide money amounts: word problems

L.2 Price lists

L.3 Unit prices

L.4 Unit prices: find the total price

L.5 Percent of a number, discount and more

L.6 Find the percent: discount and mark-up

L.7 Sale prices: find the original price

L.8 Multi-step problems with percents

L.9 Estimate tips

L.10 Simple interest

Problem solving and estimation

M.1 Estimate to solve word problems

M.2 Multi-step word problems

M.3 Guess-and-check word problems

M.4 Use Venn diagrams to solve problems

M.5 Find the number of each type of coin

M.6 Elapsed time word problems

Units of measurement

N.1 Estimate metric measurements

N.2 Compare and convert metric units

N.3 Metric mixed units

N.4 Convert square and cubic units of length

N.5 Convert between cubic metres and litres

N.6 Precision

Number sequences

O.1 Identify arithmetic and geometric sequences

O.2 Arithmetic sequences

O.3 Geometric sequences

O.4 Number sequences: mixed review

O.5 Number sequences: word problems

O.6 Evaluate variable expressions for number sequences

O.7 Write variable expressions for arithmetic sequences

Expressions and properties

P.1 Write variable expressions

P.2 Write variable expressions: word problems

P.3 Evaluate linear expressions

P.4 Evaluate multi-variable expressions

P.5 Evaluate absolute value expressions

P.6 Evaluate nonlinear expressions

P.7 Identify terms and coefficients

P.8 Sort factors of expressions

P.9 Properties of addition and multiplication

P.10 Multiply using the distributive property

P.11 Solve equations using properties

P.12 Write equivalent expressions using properties

P.13 Add and subtract like terms

P.14 Add, subtract and multiply linear expressions

P.15 Factors of linear expressions

P.16 Identify equivalent linear expressions

One-variable equations

Q.1 Which x satisfies an equation?

Q.2 Write an equation from words

Q.3 Model and solve equations using algebra tiles

Q.4 Write and solve equations that represent diagrams

Q.5 Solve one-step equations

Q.6 Solve two-step equations

Q.7 Solve equations: word problems

Q.8 Solve equations involving like terms

Q.9 Solve equations: complete the solution

Two-dimensional figures

R.1 Identify and classify polygons

R.2 Name, measure and classify angles

R.3 Classify triangles

R.4 Identify trapeziums

R.5 Classify quadrilaterals

R.6 Graph triangles and quadrilaterals

R.7 Triangle angle-sum property

R.8 Exterior angle property

R.9 Find missing angles in triangles and quadrilaterals

R.10 Interior angles of polygons

R.11 Lines, line segments and half lines

R.12 Parallel, perpendicular and intersecting lines

R.13 Identify complementary, supplementary, vertical, adjacent and congruent angles

R.14 Find measures of complementary, supplementary, vertical and adjacent angles

R.15 Transversal of parallel lines

R.16 Find lengths and measures of bisected line segments and angles

R.17 Parts of a circle

R.18 Symmetry

Congruence and similarity

S.1 Similar and congruent figures

S.2 Side lengths and angle measures of congruent figures

S.3 Congruence statements and corresponding parts

S.4 Side lengths and angle measures of similar figures

S.5 Similar figures and indirect measurement

Constructions

T.1 Construct the midpoint or perpendicular bisector of a segment

T.2 Construct an angle bisector

T.3 Construct a perpendicular line

T.4 Construct parallel lines

T.5 Construct an equilateral triangle or regular hexagon

Pythagoras' theorem

U.1 Pythagoras' theorem: find the length of the hypotenuse

U.2 Pythagoras' theorem: find the missing leg length

U.3 Pythagoras' theorem: word problems

U.4 Converse of Pythagoras' theorem: is it a right triangle?

Three-dimensional figures

V.1 Bases of three-dimensional figures

V.2 Nets of three-dimensional figures

V.3 Front, side and top view

Geometric measurement

W.1 Perimeter

W.2 Area of rectangles and parallelograms

W.3 Area of triangles

W.4 Area and perimeter: word problems

W.5 Circles: calculate area, circumference, radius and diameter

W.6 Circles: word problems

W.7 Semicircles: calculate area, perimeter, radius and diameter

W.8 Quarter circles: calculate area, perimeter and radius

W.9 Area of compound figures with triangles, semicircles and quarter circles

W.10 Area between two shapes

W.11 Perimeter, area and volume: changes in scale

Data and graphs

X.1 Interpret tables

X.2 Interpret line plots

X.3 Create line plots

X.4 Interpret stem-and-leaf plots

X.5 Create stem-and-leaf plots

X.6 Interpret bar graphs

X.7 Create bar graphs

X.8 Interpret histograms

X.9 Create histograms

X.10 Create frequency charts

X.11 Interpret line graphs

X.12 Create line graphs

Statistics

Y.1 Calculate mean, median, mode and range

Y.2 Interpret charts to find mean, median, mode and range

Y.3 Mean, median, mode and range: find the missing number

Y.4 Changes in mean, median, mode and range

Probability

Z.1 Probability of simple events

Z.2 Probability of opposite, mutually exclusive and overlapping events

Z.3 Experimental probability

Z.4 Make predictions

Z.5 Compound events: find the number of outcomes

Z.6 Counting principle