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# Year 6 maths

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## Place values and number sense

- A.1** Convert between standard and expanded form
- A.2** Place values
- A.3** Convert between place values
- A.4** Place value word problems
- A.5** Writing numbers up to one million in words: convert words to digits
- A.6** Writing numbers up to one million in words: convert digits to words
- A.7** Writing numbers up to ten million in words: convert words to digits
- A.8** Writing numbers up to ten million in words: convert digits to words
- A.9** Compare numbers up to one million
- A.10** Compare numbers up to ten million
- A.11** Put numbers in order: up to one million
- A.12** Put numbers in order: up to ten million
- A.13** Roman numerals
- A.14** Rounding: up to thousands place
- A.15** Rounding: up to millions place
- A.16** Even or odd: arithmetic rules

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## Addition and subtraction

- B.1** Add and subtract whole numbers up to millions
- B.2** Add and subtract whole numbers: word problems
- B.3** Complete addition and subtraction sentences
- B.4** Fill in the missing digits
- B.5** Choose numbers with a particular sum or difference
- B.6** Properties of addition
- B.7** Add using properties
- B.8** Inequalities with addition and subtraction
- B.9** Estimate sums and differences of whole numbers up to four digits
- B.10** Estimate sums and differences of whole numbers up to six digits
- B.11** Estimate sums and differences: word problems up to six digits

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## Fractions and mixed numbers

- L.1** Fractions review
- L.2** Fractions of a whole: word problems
- L.3** Fractions of a group: word problems
- L.4** Equivalent fractions
- L.5** Patterns of equivalent fractions
- L.6** Write fractions in lowest terms
- L.7** Lowest common denominator
- L.8** Mixed numbers
- L.9** Convert between improper fractions and mixed numbers
- L.10** Graph and compare fractions on number lines
- L.11** Compare fractions and mixed numbers
- L.12** Put fractions in order
- L.13** Arithmetic sequences with fractions
- L.14** Geometric sequences with fractions
- L.15** Round mixed numbers
- L.16** Reciprocals
- L.17** Relate division and fractions
- L.18** Understand fractions as division: word problems
- L.19** Fractions as division: decimal quotients

## Add and subtract fractions

- M.1** Decompose fractions multiple ways
- M.2** Add and subtract fractions with the same denominator using number lines
- M.3** Add and subtract fractions with the same denominator
- M.4** Add and subtract fractions with the same denominator: word problems
- M.5** Add three or more fractions with the same denominator
- M.6** Add three or more fractions with the same denominator: word problems
- M.7** Add and subtract mixed numbers with the same denominator
- M.8** Add and subtract mixed numbers with the same denominator: word problems
- M.9** Add up to 4 fractions with denominators of 10 and 100

## Equations and variables

- X.1** Write variable expressions
- X.2** Write variable expressions: word problems
- X.3** Evaluate variable expressions
- X.4** Properties of addition with variables
- X.5** Properties of multiplication with variables
- X.6** Identify equivalent expressions using bar models
- X.7** Write a one-step equation from words
- X.8** Model and solve one-step equations using algebra tiles
- X.9** Write and solve one-step equations that represent diagrams
- X.10** Solve one-step addition and subtraction equations with whole numbers
- X.11** Solve one-step multiplication and division equations with whole numbers
- X.12** Solve one-step equations with whole numbers
- X.13** Write one-step equations: word problems
- X.14** Solve one-step equations: word problems
- X.15** Does  $(x, y)$  satisfy an equation?
- X.16** Find a value using two-variable equations
- X.17** Complete a table for a two-variable relationship
- X.18** Complete a table from a graph
- X.19** Graph a two-variable relationship
- X.20** Write a two-variable equation

## Data and graphs

- Y.1** Read a table
- Y.2** Interpret pictograms
- Y.3** Create pictograms
- Y.4** Interpret line graphs
- Y.5** Create line graphs
- Y.6** Interpret bar graphs for categorical data
- Y.7** Create bar graphs for categorical data
- Y.8** Interpret double bar graphs for categorical data
- Y.9** Create double bar graphs for categorical data
- Y.10** Interpret bar graphs for

## Multiplication fluency

- C.1** Multiplication facts to 10
- C.2** Multiplication facts up to 10: find the missing factor
- C.3** Choose the multiples of a given number up to 10
- C.4** Multiplication facts to 12
- C.5** Multiplication facts up to 12: find the missing factor
- C.6** Choose the multiples of a given number up to 12

## Multiplication

- D.1** Multiply by 1-digit numbers
- D.2** Multiply by 1-digit numbers: word problems
- D.3** Multiplication patterns over increasing place values
- D.4** Properties of multiplication
- D.5** Multiply by a multiple of ten
- D.6** Estimate products
- D.7** Estimate products: word problems
- D.8** Use one multiplication fact to complete another
- D.9** Multiply 2-digit numbers by 2-digit numbers using area models I
- D.10** Multiply 2-digit numbers by 2-digit numbers using area models II
- D.11** Multiply 2-digit numbers by 2-digit numbers using partial products
- D.12** Multiply 2-digit numbers by 2-digit numbers: complete the missing steps
- D.13** Multiply 2-digit numbers by 2-digit numbers
- D.14** Multiply 2-digit numbers by 2-digit numbers: word problems
- D.15** Box multiplication
- D.16** Lattice multiplication
- D.17** Multiply 2-digit numbers by 3-digit or 4-digit numbers: complete the missing steps
- D.18** Multiply 2-digit numbers by 3-digit or 4-digit numbers
- D.19** Multiply 2-digit numbers by 3-digit or 4-digit numbers: word problems
- D.20** Multiply three or more numbers up to 2 digits each
- D.21** Multiply three or more numbers: word problems
- D.22** Choose numbers with a particular product
- D.23** Multiply numbers ending in zeroes
- D.24** Multiply numbers ending in zeroes: word problems
- D.25** Inequalities with multiplication

## Division fluency

- E.1** Division facts to 10
- E.2** Division facts to 10: word problems
- E.3** Division facts to 12
- E.4** Division facts to 12: word problems

- M.10** Add fractions with different denominators using models
- M.11** Add fractions with different denominators
- M.12** Subtract fractions with different denominators using models
- M.13** Subtract fractions with different denominators
- M.14** Add and subtract fractions with different denominators
- M.15** Add and subtract fractions with different denominators: word problems
- M.16** Add three or more fractions with different denominators
- M.17** Add three or more fractions with different denominators: word problems
- M.18** Complete addition and subtraction sentences with fractions
- M.19** Inequalities with addition and subtraction of fractions
- M.20** Estimate sums and differences of mixed numbers
- M.21** Add mixed numbers with different denominators
- M.22** Subtract mixed numbers with different denominators
- M.23** Add and subtract mixed numbers with different denominators
- M.24** Add and subtract mixed numbers with different denominators: word problems
- M.25** Complete addition and subtraction sentences with mixed numbers
- M.26** Inequalities with addition and subtraction of mixed numbers

## Multiply and divide fractions

- N.1** Multiply unit fractions by whole numbers using number lines
- N.2** Multiply unit fractions by whole numbers using models
- N.3** Multiples of fractions
- N.4** Multiply unit fractions and whole numbers: sorting
- N.5** Multiply fractions by whole numbers using number lines
- N.6** Multiplying fractions by whole numbers: choose the model
- N.7** Multiply fractions and whole numbers: sorting
- N.8** Multiply fractions by whole numbers
- N.9** Multiply fractions by whole numbers: input/output tables
- N.10** Fractions of a number
- N.11** Fractions of a number: word problems
- N.12** Scaling whole numbers by fractions: justify your answer
- N.13** Scaling whole numbers by fractions
- N.14** Multiply two unit fractions using models
- N.15** Multiply two fractions using models: fill in the missing factor
- N.16** Multiply two fractions using models
- N.17** Multiply two fractions
- N.18** Multiply fractions: word

- Y.10** Interpret bar graphs for grouped data
- Y.11** Create bar graphs for grouped data
- Y.12** Interpret line plots
- Y.13** Create line plots
- Y.14** Interpret frequency charts: one-step problems
- Y.15** Interpret frequency charts: multi-step problems
- Y.16** Create frequency charts
- Y.17** Interpret stem-and-leaf plots
- Y.18** Create stem-and-leaf plots
- Y.19** Pie charts
- Y.20** Pie charts and central angles
- Y.21** Choose the best type of graph

## Probability and statistics

- Z.1** Understanding probability
- Z.2** Find the probability
- Z.3** Find the probability as a fraction
- Z.4** Experimental probability
- Z.5** Make predictions
- Z.6** Identify statistical questions
- Z.7** Find the mode
- Z.8** Find the mean
- Z.9** Find the median
- Z.10** Find the range
- Z.11** Mode: find the missing number
- Z.12** Mean: find the missing number
- Z.13** Median: find the missing number
- Z.14** Range: find the missing number
- Z.15** Interpret charts to find mode
- Z.16** Interpret charts to find mean
- Z.17** Interpret charts to find median
- Z.18** Interpret charts to find range
- Z.19** Identify representative, random and biased samples

## Time

- AA.1** Convert time units
- AA.2** Add and subtract mixed time units
- AA.3** Elapsed time
- AA.4** Find start and end times: word problems
- AA.5** Convert between 12-hour and 24-hour time
- AA.6** Time zones - 12-hour time
- AA.7** Time zones - 24-hour time
- AA.8** Schedules and timelines - 12-hour time
- AA.9** Schedules - 24-hour time
- AA.10** Time patterns

## Units of measurement

- BB.1** Choose the more reasonable temperature
- BB.2** Calculate temperature differences
- BB.3** Choose the appropriate metric unit of measure
- BB.4** Compare and convert metric units of length
- BB.5** Compare and convert metric units of mass

## Division

- F.1** Divide by 1-digit numbers
- F.2** Divide by 1-digit numbers: word problems
- F.3** Division patterns over increasing place values
- F.4** Estimate quotients
- F.5** Estimate quotients: word problems
- F.6** Estimate quotients using compatible numbers
- F.7** Divide by 2-digit numbers using models
- F.8** Divide by 2-digit numbers using partial quotients
- F.9** Divide 2-digit and 3-digit numbers by 2-digit numbers
- F.10** Divide 2-digit and 3-digit numbers by 2-digit numbers: word problems
- F.11** Divide 4-digit numbers by 2-digit numbers
- F.12** Divide 4-digit numbers by 2-digit numbers: word problems
- F.13** Adjust quotients
- F.14** Multi-step word problems: multiplicative comparison
- F.15** Relate multiplication and division
- F.16** Complete the division sentence: 2-digit divisors
- F.17** Choose numbers with a particular quotient
- F.18** Divide numbers ending in zeroes
- F.19** Divide numbers ending in zeroes: word problems

## Number theory

- G.1** Divisibility rules
- G.2** Divisibility rules: word problems
- G.3** Identify factors
- G.4** Find all the factor pairs of a number
- G.5** Prime and composite numbers: up to 20
- G.6** Prime and composite numbers: up to 100
- G.7** Prime factorisation
- G.8** Highest common factor
- G.9** Lowest common multiple

## Decimals

- H.1** What decimal number is illustrated?
- H.2** Model decimals and fractions
- H.3** Understanding decimals expressed in words
- H.4** Place values in decimal numbers
- H.5** Relationship between decimal place values
- H.6** Convert decimals between standard and expanded form
- H.7** Equivalent decimals
- H.8** Round decimals
- H.9** Decimal number lines
- H.10** Compare decimals on number lines
- H.11** Compare decimal numbers
- H.12** Put decimal numbers in order

- N.18** Multiply fractions: word problems
- N.19** Complete the fraction multiplication sentence I
- N.20** Complete the fraction multiplication sentence II
- N.21** Divide unit fractions by whole numbers using models
- N.22** Divide unit fractions by whole numbers using area models
- N.23** Divide unit fractions by whole numbers
- N.24** Divide fractions by whole numbers

## Integers

- O.1** Understanding integers
- O.2** Integers on number lines
- O.3** Graph integers on horizontal and vertical number lines
- O.4** Understanding opposite integers
- O.5** Compare integers
- O.6** Put integers in order

## Add and subtract integers

- P.1** Add integers using number lines
- P.2** Subtract integers using number lines
- P.3** Add and subtract integers using number lines

## Mixed operations

- Q.1** Add, subtract, multiply and divide whole numbers
- Q.2** Add, subtract, multiply and divide whole numbers: word problems
- Q.3** Write numerical expressions
- Q.4** Evaluate numerical expressions
- Q.5** Evaluate numerical expressions with brackets
- Q.6** Evaluate numerical expressions with brackets and square brackets
- Q.7** Evaluate numerical expressions with brackets in different places
- Q.8** Missing operators
- Q.9** Add, subtract, multiply and divide decimals
- Q.10** Add, subtract, multiply and divide decimals: word problems
- Q.11** Equations with mixed operations: true or false
- Q.12** Add, subtract, multiply and divide fractions and mixed numbers
- Q.13** Add, subtract and multiply fractions and mixed numbers: word problems

## Problem solving

- R.1** Make the largest possible quotient
- R.2** Write numerical expressions for word problems
- R.3** Multi-step addition and subtraction word problems
- R.4** Multi-step word problems
- R.5** Multi-step word problems involving remainders
- R.6** Multi-step word problems:

units of mass

- BB.6** Compare and convert metric units of volume
- BB.7** Convert metric mixed units
- BB.8** Add and subtract metric mixed units
- BB.9** Multi-step problems with metric unit conversions
- BB.10** Choose the appropriate imperial unit of measure
- BB.11** Compare and convert imperial units of length
- BB.12** Compare and convert imperial units of weight
- BB.13** Compare and convert imperial units of volume
- BB.14** Imperial mixed units
- BB.15** Convert between miles and kilometres
- BB.16** Convert between metric and imperial units
- BB.17** Precision

## Two-dimensional figures

- CC.1** Is it a polygon?
- CC.2** Regular and irregular polygons
- CC.3** Number of sides in polygons
- CC.4** Interior angles of polygons
- CC.5** Sort polygons into Venn diagrams
- CC.6** Properties of polygons
- CC.7** Lines, line segments and rays
- CC.8** Parallel, perpendicular and intersecting lines
- CC.9** Parts of a circle

## Angles

- DD.1** Types of angles
- DD.2** Measure angles with a protractor
- DD.3** Draw angles with a protractor
- DD.4** Find a missing angle - vertical angles
- DD.5** Find a missing angle - adjacent angles
- DD.6** Find a missing angle - supplementary angles
- DD.7** Find a missing angle - vertical, adjacent and supplementary angles
- DD.8** Find a missing angle - complementary angles
- DD.9** Find measures of complementary and supplementary angles

## Triangles and quadrilaterals

- EE.1** Classify triangles
- EE.2** Find missing angles in triangles
- EE.3** Parallel sides in quadrilaterals
- EE.4** Sides and angles of quadrilaterals
- EE.5** Identify parallelograms
- EE.6** Identify trapeziums
- EE.7** Identify rectangles
- EE.8** Identify rhombuses
- EE.9** Classify quadrilaterals
- EE.10** Pick all the names for a quadrilateral

- H.12** Put decimal numbers in order
- H.13** Convert fractions to decimals
- H.14** Convert mixed numbers to decimals
- H.15** Convert decimals to fractions
- H.16** Convert decimals to mixed numbers
- H.17** Convert decimals between standard and expanded form using fractions
- H.18** Compare decimals and fractions on number lines
- H.19** Compare decimals and fractions
- H.20** Put assorted decimals, fractions and mixed numbers in order
- H.21** Number sequences involving decimals

## Add and subtract decimals

- I.1** Add decimal numbers using blocks
- I.2** Add decimal numbers
- I.3** Subtract decimal numbers
- I.4** Add and subtract decimal numbers
- I.5** Add and subtract decimals: word problems
- I.6** Choose decimals with a particular sum or difference
- I.7** Complete the decimal addition or subtraction sentence
- I.8** Inequalities with decimal addition and subtraction
- I.9** Estimate sums and differences of decimals

## Multiply decimals

- J.1** Estimate products of two-digit whole numbers and decimals
- J.2** Estimate products of decimals
- J.3** Multiply a decimal by 10, 100 or 1,000
- J.4** Multiply by 0.1 or 0.01
- J.5** Multiply by a power of ten with decimals: find the missing number
- J.6** Multiply a decimal by a one-digit whole number using blocks
- J.7** Multiply a decimal by a one-digit whole number using the distributive property
- J.8** Multiply a decimal by a one-digit whole number
- J.9** Multiply a decimal by a one-digit whole number: word problems
- J.10** Inequalities with decimal multiplication
- J.11** Multiply a decimal by a two-digit whole number using area models
- J.12** Multiply a decimal by a two-digit whole number
- J.13** Multiply a decimal by a one- or two-digit whole number: word problems
- J.14** Multiply three or more numbers, one of which is a decimal

## Divide decimals

- K.1** Estimate decimal quotients
- K.2** Divide a whole number by 10, 100 or 1,000; decimal quotients

- R.7** Word problems with extra or missing information
- R.8** Guess-and-check problems
- R.9** Find the order
- R.10** Use Venn diagrams to solve problems

## Ratios and rates

- S.1** Write a ratio
- S.2** Write a ratio using a fraction
- S.3** Write a ratio: word problems
- S.4** Identify equivalent ratios
- S.5** Write an equivalent ratio
- S.6** Ratio tables
- S.7** Unit rates
- S.8** Equivalent rates
- S.9** Ratios and rates: word problems
- S.10** Do the ratios form a proportion?
- S.11** Solve the proportion
- S.12** Scale drawings: word problems

## Percents

- T.1** What percentage is illustrated?
- T.2** Understanding percents: bar models
- T.3** Convert fractions to percents using grid models
- T.4** Convert between percents, fractions and decimals
- T.5** Convert between percents, fractions and decimals: word problems
- T.6** Compare percents to each other and to fractions
- T.7** Compare percents and fractions: word problems
- T.8** Percent of a number
- T.9** Percent of a number: word problems
- T.10** Compare percents of numbers

## Money

- U.1** Add and subtract money amounts
- U.2** Add and subtract money amounts: word problems
- U.3** Multiply money amounts
- U.4** Multiply money amounts: word problems
- U.5** Multiply money amounts with decimals
- U.6** Multiply money amounts with decimals: word problems
- U.7** Divide money amounts
- U.8** Divide money amounts: word problems
- U.9** Divide money amounts with decimals
- U.10** Divide money amounts with decimals: word problems
- U.11** Price lists
- U.12** Unit prices

## Number sequences

- V.1** Use a rule to complete an addition or subtraction pattern

- EE.11** Draw quadrilaterals
- EE.12** Graph triangles and quadrilaterals
- EE.13** Identify the relationships between quadrilaterals
- EE.14** Describe relationships among quadrilaterals
- EE.15** Find missing angles in quadrilaterals

## Symmetry and transformations

- FF.1** Lines of symmetry
- FF.2** Draw lines of symmetry
- FF.3** Count lines of symmetry
- FF.4** Rotational symmetry
- FF.5** Rotational symmetry: amount of rotation
- FF.6** Identify reflections, rotations and translations
- FF.7** Translations: graph the image
- FF.8** Reflections: graph the image
- FF.9** Combinations of reflections, rotations and translations
- FF.10** Identify congruent and similar figures
- FF.11** Identify similar triangles and quadrilaterals

## Three-dimensional figures

- GG.1** Identify three-dimensional figures
- GG.2** Count vertices, edges and faces
- GG.3** Which figure is being described?
- GG.4** Nets of three-dimensional figures
- GG.5** Three-dimensional figures viewed from different perspectives

## Geometric measurement

- HH.1** Find the perimeter of rectangles using formulas
- HH.2** Perimeter with whole number side lengths
- HH.3** Perimeter with decimal side lengths
- HH.4** Area of squares and rectangles
- HH.5** Understanding area of a parallelogram
- HH.6** Area of parallelograms
- HH.7** Understanding area of a triangle
- HH.8** Area of right triangles
- HH.9** Area of triangles
- HH.10** Area of compound figures
- HH.11** Area between two rectangles
- HH.12** Area and perimeter of figures on grids
- HH.13** Area and perimeter: word problems
- HH.14** Use area and perimeter to determine cost
- HH.15** Relationship between area and perimeter
- HH.16** Volume of figures made of unit cubes
- HH.17** Volume of cubes and cuboids

100 or 1,000: decimal quotients

- K.3** Divide a decimal by 10, 100 or 1,000
- K.4** Decimal division patterns over increasing place values
- K.5** Divide two whole numbers: decimal quotients
- K.6** Divide a decimal by a power of ten with decimals: find the missing number
- K.7** Divide decimals using blocks: complete the equation
- K.8** Divide decimals using area models: complete the equation
- K.9** Divide decimals by one-digit whole numbers
- K.10** Division with decimal quotients and rounding
- K.11** Division with decimal quotients: word problems

addition or subtraction pattern

- V.2** Use a rule to complete a number pattern
- V.3** Use a two-step rule to complete a number pattern
- V.4** What is true about the addition pattern?
- V.5** What is true about the multiplication pattern?
- V.6** Complete a linear number sequence
- V.7** Complete an increasing number sequence
- V.8** Complete a geometric number sequence
- V.9** Linear sequences: word problems
- V.10** Number sequences: word problems
- V.11** Number sequences: mixed review
- V.12** Shape patterns

**HH.17** volume of cubes and cuboids

- HH.18** Relationship between volume and the area of the base: word problems
- HH.19** Compare volumes and dimensions of cuboids: word problems

## Financial literacy

- II.1** Identify advantages and disadvantages of payment methods
- II.2** Evaluate payment methods
- II.3** Reading financial records
- II.4** Keeping financial records
- II.5** Balance a budget
- II.6** Adjust a budget

## Coordinate plane

- W.1** Describe the coordinate plane
- W.2** Objects on a coordinate plane
- W.3** Graph points on a coordinate plane
- W.4** Coordinate planes as maps
- W.5** Objects on a coordinate plane - all four quadrants
- W.6** Graph points on a coordinate plane - all four quadrants
- W.7** Quadrants