

MATHS ADVENTURE WORKBOOK

Classes 1-5 | Examples, Practice and Answer Key

Prepared for young learners by
Techkey Solutions (OPC) Pvt. Ltd.

Learn a concept. Try an example. Practice with confidence.

Student name: _____

Class: _____ Date started: _____

How to use this workbook

Each class has four short learning modules. Read the idea, follow the worked example, then solve the practice questions. Show your steps where possible. Check your answers at the end and revisit any question that was tricky.

For parents and teachers: Invite the learner to explain how they got an answer. Use counters, paper shapes, coins, measuring tools or drawings. The activities are designed to make maths visible and connected to daily life.

Suggested lesson rhythm

1. Quick warm-up (5 min)
2. Explain and model (10 min)
3. Solve together (10 min)
4. Independent practice (10-15 min)
5. Talk about one real-life use (5 min)

Contents

Class 1 - Numbers and Basic Maths

Class 2 - Number Sense and Everyday Maths

Class 3 - Operations and Logical Thinking

Class 4 - Fractions, Decimals and Problem Solving

Class 5 - Strong Foundations for Middle School

Class 1 - Numbers and Basic Maths

Counting, simple operations, shapes, patterns, measurement and time.

Learning goal: I can explain my strategy, not just give an answer.

1. Numbers Around Us

Learn: Count and read numbers from 1 to 100. Compare numbers using greater than, less than and equal to.

Worked example: Example: 34 has 3 tens and 4 ones. 34 comes after 33 and before 35. Since 34 is greater than 29, write $34 > 29$.

Your practice:

- a) What number comes after 58? _____
- b) What number comes before 40? _____
- c) Fill in: 26, 27, _____, 29
- d) Which is greater: 46 or 64? _____

2. Addition and Subtraction

Learn: Add and subtract within 20 using objects, pictures or a number line.

Worked example: Example: $8 + 5$. Start at 8 and jump forward 5: 9, 10, 11, 12, 13. So $8 + 5 = 13$. For $14 - 6$, move back 6 from 14: answer 8.

Your practice:

- a) $7 + 6 =$ _____
- b) $15 - 8 =$ _____
- c) Ria has 9 apples and gets 4 more. How many now? _____
- d) 16 balloons; 5 fly away. How many remain? _____

3. Shapes and Patterns

Learn: Recognise circle, square, triangle and rectangle; continue repeating patterns.

Worked example: Example: red, blue, red, blue, _____. The pattern repeats red-blue, so the next two are red, blue. A triangle has 3 sides.

Your practice:

- a) Complete: circle, square, circle, square, _____, _____
- b) How many sides does a rectangle have? _____
- c) Draw a shape with 3 sides.
- d) Find one circular object at home and name it.

4. Measuring and Time

Learn: Compare long/short, heavy/light and read simple o'clock times.

Worked example: Example: If the minute hand points to 12 and hour hand points to 4, the time is 4 o'clock. A pencil is shorter than a ruler.

Your practice:

- a) Which is usually heavier: a book or a feather? _____
- b) Minute hand at 12, hour hand at 7: _____ o'clock
- c) Put in order shortest to longest: 2 cm, 8 cm, 5 cm.
- d) Name one thing that holds more water: cup or bucket?

Class challenge

Make a number picture using 3 shapes and label how many sides each shape has.

Reflection: One thing I can do now: _____

Class 2 - Number Sense and Everyday Maths

Place value to 1,000, carrying/borrowing, multiplication, equal sharing, money and measurement.

Learning goal: I can explain my strategy, not just give an answer.

1. Numbers to 1,000

Learn: Read, compare and break numbers into hundreds, tens and ones.

Worked example: Example: $472 = 4 \text{ hundreds} + 7 \text{ tens} + 2 \text{ ones} = 400 + 70 + 2$. Since $472 > 427$, 472 is greater.

Your practice:

- a) Expand 305: _____
- b) In 681, how many tens? _____
- c) Put $>$, $<$ or $=$: 519 _____ 591
- d) Write the number: 2 hundreds, 8 tens, 6 ones. _____

2. Addition and Subtraction

Learn: Add and subtract 2- and 3-digit numbers; solve short word problems.

Worked example: Example: $38 + 27$: ones $8+7=15$, write 5 carry 1; tens $3+2+1=6$. Answer 65.
 $52-18=34$.

Your practice:

- a) $46 + 38 =$ _____
- b) $83 - 29 =$ _____
- c) A library has 125 storybooks and buys 36 more. Total? _____
- d) There are 90 pencils; 47 are used. Left? _____

3. Multiplication and Equal Sharing

Learn: Understand multiplication as equal groups and division as sharing equally.

Worked example: Example: 4 plates with 3 cookies each means $3+3+3+3 = 12$, or $4 \times 3 = 12$. Sharing 12 cookies among 4 children gives 3 each: $12 \div 4 = 3$.

Your practice:

- a) 5 groups of 2 = _____
- b) $3 \times 4 =$ _____
- c) Share 20 stickers equally among 5 friends. Each gets _____
- d) 18 mangoes in baskets of 3. How many baskets? _____

4. Fractions, Money and Measurement

Learn: Recognise halves/quarters, add simple prices and measure length.

Worked example: Example: One of two equal parts is $\frac{1}{2}$. A Rs 10 pencil and Rs 15 notebook cost Rs 25 altogether.

Your practice:

- a) A pizza cut into 4 equal pieces; one piece is _____
- b) Rs 20 + Rs 7 = Rs _____
- c) Which is longer: 1 metre or 80 centimetres? _____
- d) A bottle holds 1 litre. Is 500 ml more or less than 1 litre?

Class challenge

Design a pretend shop with 5 items, prices, and 3 shopping questions.

Reflection: One thing I can do now: _____

Class 3 - Operations and Logical Thinking

Place value, multiplication/division, fractions, perimeter, time and data.

Learning goal: I can explain my strategy, not just give an answer.

1. Place Value and Rounding

Learn: Read 4-digit numbers, identify place values and round to nearest ten.

Worked example: Example: $3,648 = 3,000 + 600 + 40 + 8$. To round 3,648 to nearest ten, ones digit is 8, so round up to 3,650.

Your practice:

- a) Expand 5,207: _____
- b) Value of 9 in 2,943: _____
- c) Round 476 to nearest ten: _____
- d) Which is smaller: 4,098 or 4,089? _____

2. Multiplication and Division

Learn: Multiply 2-digit numbers by 1 digit; divide and interpret remainders.

Worked example: Example: $23 \times 3 = (20 \times 3) + (3 \times 3) = 60 + 9 = 69$. $17 \div 5 = 3$ remainder 2.

Your practice:

- a) $24 \times 4 =$ _____
- b) $63 \div 7 =$ _____
- c) 29 marbles shared among 4 children: each gets _____ and _____ remain.
- d) 6 boxes hold 8 crayons each. Total crayons? _____

3. Fractions

Learn: Name equal parts and compare simple fractions with same denominator.

Worked example: Example: A shape split into 8 equal parts with 3 shaded represents $\frac{3}{8}$. When denominators match, $\frac{5}{8} > \frac{2}{8}$ because 5 parts are more than 2 parts.

Your practice:

- a) Write the fraction: 2 of 5 equal parts shaded. _____
- b) Which is greater: $\frac{3}{6}$ or $\frac{5}{6}$? _____
- c) One half of 12 is _____
- d) Draw a rectangle divided into 4 equal parts and shade $\frac{1}{4}$.

4. Geometry, Time and Data

Learn: Find perimeter by adding side lengths; read simple charts and elapsed time.

Worked example: Example: A rectangle has sides 5 cm, 3 cm, 5 cm, 3 cm. Perimeter = $5 + 3 + 5 + 3 = 16$ cm.

Your practice:

- a) Perimeter of a square with side 4 cm: _____

- b) 2:00 to 4:00 is ____ hours
- c) Survey: 6 like apples, 4 like bananas. How many students answered? ____
- d) Which shape has 3 sides? ____

Class challenge

Ask 5 people their favourite fruit. Make tally marks and write which fruit got most votes.

Reflection: One thing I can do now: _____

Class 4 - Fractions, Decimals and Problem Solving

Larger numbers, factors/multiples, fractions, decimals, area, perimeter and graphs.

Learning goal: I can explain my strategy, not just give an answer.

1. Large Numbers and Operations

Learn: Work with 5-digit numbers and multi-step addition/subtraction.

Worked example: Example: $24,315 + 3,208 = 27,523$. Estimate: about $24,000 + 3,000 = 27,000$, so the answer is reasonable.

Your practice:

- a) Expand 36,504: _____
- b) $18,750 + 6,285 =$ _____
- c) $40,000 - 17,650 =$ _____
- d) A school has 1,245 students; 128 join. New total? _____

2. Factors and Multiples

Learn: Find factor pairs and list multiples.

Worked example: Example: Factor pairs of 12 are 1×12 , 2×6 , 3×4 . First five multiples of 4: 4, 8, 12, 16, 20.

Your practice:

- a) List two factor pairs of 18. _____
- b) First four multiples of 6: _____
- c) Is 7 a factor of 35? _____
- d) Which is a multiple of 5: 32 or 40? _____

3. Fractions and Decimals

Learn: Add/subtract fractions with same denominator; understand tenths and hundredths.

Worked example: Example: $\frac{2}{7} + \frac{3}{7} = \frac{5}{7}$. 0.4 means four tenths; $0.4 = \frac{4}{10}$.

Your practice:

- a) $\frac{3}{8} + \frac{2}{8} =$ _____
- b) $\frac{6}{10} - \frac{2}{10} =$ _____
- c) Write 7 tenths as a decimal: _____
- d) Which is greater: 0.7 or 0.5? _____

4. Perimeter, Area and Data

Learn: Calculate perimeter and count square units for area; interpret bar-chart data.

Worked example: Example: A rectangle 6 cm long and 3 cm wide has perimeter $6+3+6+3=18$ cm. Area = 6 rows? Formula for this rectangle: $6 \times 3 = 18$ square cm.

Your practice:

- a) Area of a 4 by 5 grid rectangle: ____ square units
- b) Perimeter of a square side 7 cm: ____
- c) In a chart, red=8 votes, blue=5 votes. Difference? ____
- d) What unit might measure a book's mass: kg or cm? ____

Class challenge

Draw a small garden on grid paper. Mark its length and width, then find area and perimeter.

Reflection: One thing I can do now: _____

Class 5 - Strong Foundations for Middle School

Fractions, decimals, percentages, factors, integers, geometry and data.

Learning goal: I can explain my strategy, not just give an answer.

1. Multi-step Whole Number Problems

Learn: Estimate and solve problems requiring more than one operation.

Worked example: Example: 3 buses carry 42 students each. 18 students travel by car. Total students = $3 \times 42 + 18 = 126 + 18 = 144$.

Your practice:

- a) 5 boxes have 24 pencils each; 17 pencils are given away. Left? _____
- b) Estimate $498 + 203$ to nearest hundred: _____
- c) $864 \div 8 =$ _____
- d) A trip is 125 km each way. Total return distance? _____

2. Fractions, Decimals and Percent

Learn: Operate with simple fractions/decimals and connect common percentages.

Worked example: Example: $\frac{1}{4} = 0.25 = 25\%$. $2.5 + 1.2 = 3.7$. A 10% discount on Rs 100 is Rs 10.

Your practice:

- a) $\frac{2}{5} + \frac{1}{5} =$ _____
- b) $4.8 - 1.3 =$ _____
- c) 50% of 20 = _____
- d) Convert $\frac{1}{2}$ to a percentage: _____

3. Factors, Multiples and Integers

Learn: Identify prime numbers, common factors and locate integers on a number line.

Worked example: Example: 13 is prime because it has only factors 1 and 13. On a number line, -2 is left of 0 and 3 is right of 0.

Your practice:

- a) Is 21 prime or composite? _____
- b) List the factors of 10: _____
- c) Which is greater: -1 or -4? _____
- d) First three positive multiples of 7: _____

4. Geometry, Ratio and Data

Learn: Find area/volume in simple cases, compare ratios and read data.

Worked example: Example: A 4 cm x 3 cm rectangle has area 12 sq cm. A recipe uses 2 cups water for 1 cup juice concentrate; ratio water to concentrate is 2:1.

Your practice:

- a) Area of 8 cm x 2 cm rectangle: _____
- b) Simplify ratio 6:3: _____
- c) A box has 3 layers, each layer 4 cubes. Total cubes? _____
- d) Scores: 4, 6, 6, 8. What is the mode? _____

Class challenge

Plan a mini class party: estimate total cost, calculate servings, and show your work.

Reflection: One thing I can do now: _____

Answer Key

Answers are provided for checking. For drawing and activity questions, accept different correct solutions and ask the learner to explain their thinking.

Class 1 - Numbers and Basic Maths

1. Numbers Around Us

Answers: a) 59 b) 39 c) 28 d) 64

2. Addition and Subtraction

Answers: a) 13 b) 7 c) 13 apples d) 11 balloons

3. Shapes and Patterns

Answers: a) circle, square b) 4 c) Triangle d) Answers vary

4. Measuring and Time

Answers: a) Book b) 7 c) 2 cm, 5 cm, 8 cm d) Bucket

Class 2 - Number Sense and Everyday Maths

1. Numbers to 1,000

Answers: a) $300+0+5$ b) 8 tens c) $<$ d) 286

2. Addition and Subtraction

Answers: a) 84 b) 54 c) 161 d) 43

3. Multiplication and Equal Sharing

Answers: a) 10 b) 12 c) 4 d) 6

4. Fractions, Money and Measurement

Answers: a) $\frac{1}{4}$ b) 27 c) 1 metre d) Less

Class 3 - Operations and Logical Thinking

1. Place Value and Rounding

Answers: a) $5,000+200+0+7$ b) 900 c) 480 d) 4,089

2. Multiplication and Division

Answers: a) 96 b) 9 c) 7 each, 1 remains d) 48

3. Fractions

Answers: a) $\frac{2}{5}$ b) $\frac{5}{6}$ c) 6 d) Check drawing

4. Geometry, Time and Data

Answers: a) 16 cm b) 2 c) 10 d) Triangle

Class 4 - Fractions, Decimals and Problem Solving

1. Large Numbers and Operations

Answers: a) $30,000+6,000+500+4$ b) 25,035 c) 22,350 d) 1,373

2. Factors and Multiples

Answers: a) 1×18 , 2×9 , 3×6 (any two) b) 6, 12, 18, 24 c) Yes d) 40

3. Fractions and Decimals

Answers: a) $\frac{5}{8}$ b) $\frac{4}{10}$ c) 0.7 d) 0.7

4. Perimeter, Area and Data

Answers: a) 20 b) 28 cm c) 3 votes d) kg

Class 5 - Strong Foundations for Middle School

1. Multi-step Whole Number Problems

Answers: a) 103 b) 700 c) 108 d) 250 km

2. Fractions, Decimals and Percent

Answers: a) $\frac{3}{5}$ b) 3.5 c) 10 d) 50%

3. Factors, Multiples and Integers

Answers: a) Composite b) 1,2,5,10 c) -1 d) 7,14,21

4. Geometry, Ratio and Data

Answers: a) 16 sq cm b) 2:1 c) 12 d) 6

Keep practising! Maths gets easier when you notice it in the world around you.