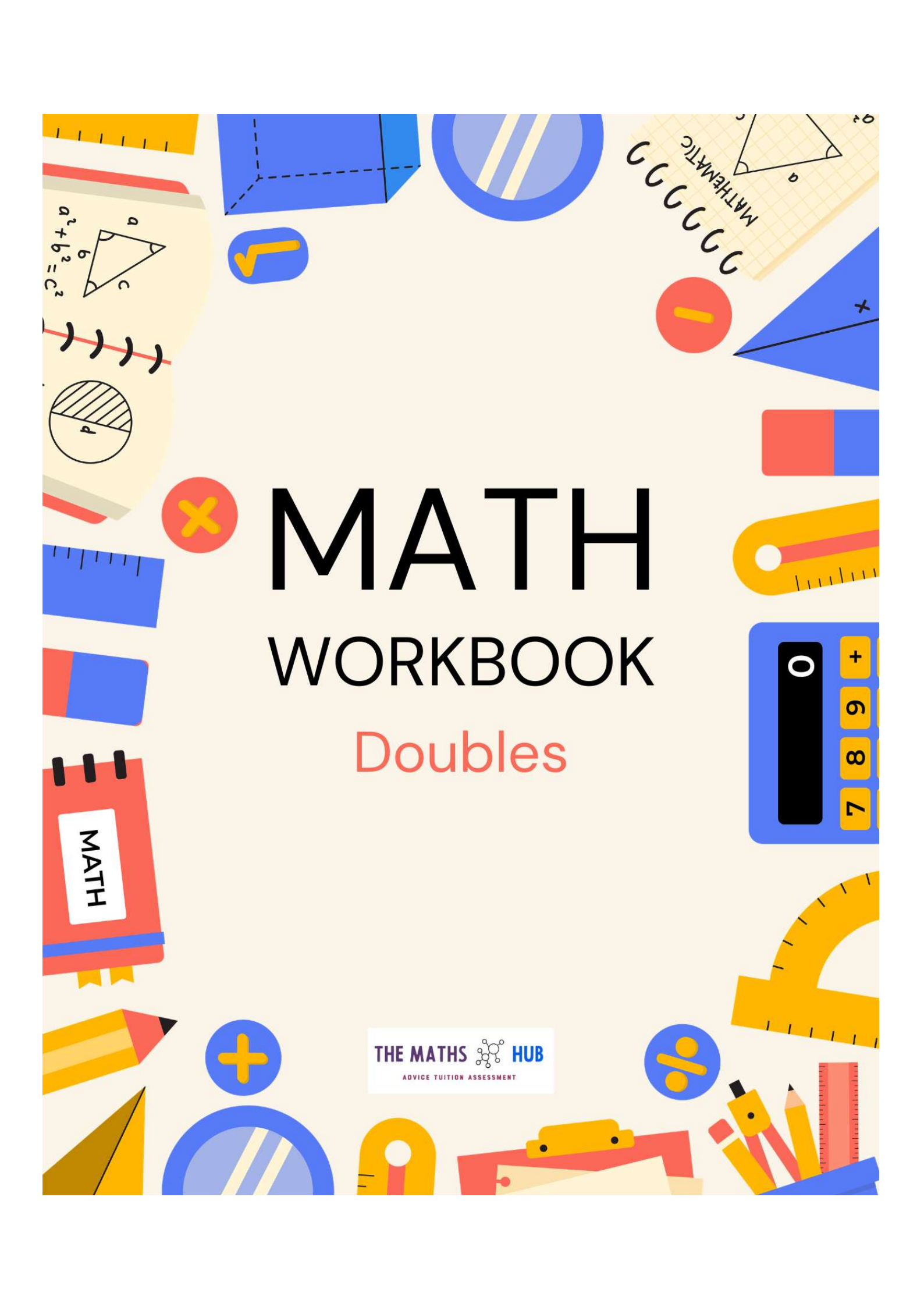


Numbers to 10

ADVICE TUITION ASSESSMENT

The background of the cover is a light cream color, framed by a decorative border of various mathematical and school-related icons. These include a yellow ruler at the top left, a blue cube, a blue circle with yellow stripes, a yellow grid paper with a right-angled triangle and the word 'MATHEMATIC' written vertically, a red circle with a yellow minus sign, a blue triangle with a plus sign, a red and blue rectangle, a yellow pencil sharpener, a blue calculator with a black display showing '0' and buttons for '+', '6', '9', '8', '7', a yellow protractor, a yellow pencil, a red and blue notebook with a 'MATH' label, a blue circle with a yellow plus sign, a blue circle with a yellow percent sign, a yellow ruler, a red and blue notebook, and a yellow pencil. In the top left corner, there is a diagram of a right-angled triangle with sides labeled 'a', 'b', and 'c', and the equation $a^2 + b^2 = c^2$. In the bottom left corner, there is a diagram of a circle with a shaded sector and the letter 'P' inside. The main title 'MATH WORKBOOK' is centered in a large, bold, black sans-serif font. Below it, the word 'Doubles' is written in a smaller, red, sans-serif font. A red circle with a yellow 'x' is positioned to the left of the word 'MATH'.

MATH

WORKBOOK

Doubles

THE MATHS  HUB
ADVICE TUITION ASSESSMENT

Doubles Facts: Numbers to 10

Use the cue cards and appendix resources when needed. Choose representations that help you explain your thinking and show your strategy.

Part A: Addition and Subtraction Facts

Use your doubles facts to solve the calculations.

$1 + 1 = \underline{\quad}$

$\underline{\quad} = 2 - 1$

$\underline{\quad} = 2 + 2$

$4 - 2 = \underline{\quad}$

$3 + 3 = \underline{\quad}$

$\underline{\quad} = 6 - 3$

$\underline{\quad} = 4 + 4$

$8 - 4 = \underline{\quad}$

$5 + 5 = \underline{\quad}$

$\underline{\quad} = 10 - 5$

Part B: Missing Number

Write the missing number on each line.

$$\underline{\quad} + 1 = 2$$

$$8 - \underline{\quad} = 4$$

$$4 - \underline{\quad} = 2$$

$$\underline{\quad} + 4 = 8$$

$$\underline{\quad} + 2 = 4$$

$$10 - \underline{\quad} = 5$$

$$6 - \underline{\quad} = 3$$

$$\underline{\quad} + 5 = 10$$

$$\underline{\quad} + 3 = 6$$

$$2 - \underline{\quad} = 1$$

How did knowing double 4 help you solve $8 - \underline{\quad} = 4$?

Part C: Challenge

Use your doubles facts to solve the challenges.

What is double 4? $\underline{\quad}$

What is half of 8? $\underline{\quad}$

Which subtraction fact has an answer of 4?

$8 - 4$ $6 - 3$ $10 - 5$

Which is bigger?

Double 4 or Double 3

Part D: Word Problems

Read each word problem carefully. Use your doubles facts to help you find the answer.

Sam has 2 game tokens. He wins the same number again. How many counters does he have now?

Answer: _____

Ava has 8 reward points. She gives four to a friend. How many points does she give away?

Answer: _____

A video has been viewed 5 times today and 5 times yesterday. How many views has it had altogether?

Answer: _____

Liam has 10 football cards and stores six in a box. How many cards are not in the box?

Answer: _____

Use the space below to write and answer your own word problem.

Answer: _____

Extension Challenge

★ Part E: Add or Subtract a Single-Digit Number to/from a Two-Digit Number

Use what you know about doubles to help you solve each calculation.

$24 + 4 = \underline{\quad}$

$34 + 4 = \underline{\quad}$

$36 - 3 = \underline{\quad}$

$68 - 4 = \underline{\quad}$

$42 + 2 = \underline{\quad}$

$82 + 2 = \underline{\quad}$

$18 - 4 = \underline{\quad}$

$26 - 3 = \underline{\quad}$

★ Part F: Add or Subtract Decade Numbers

Use your doubles facts to help you add or subtract the decade numbers.

$20 + 20 = \underline{\quad}$

$10 + 10 = \underline{\quad}$

$40 - 20 = \underline{\quad}$

$80 - 40 = \underline{\quad}$

$40 + 40 = \underline{\quad}$

$50 + 50 = \underline{\quad}$

$60 - 30 = \underline{\quad}$

$100 - 50 = \underline{\quad}$

What pattern do you notice?

★ Part G: Simplify Expressions

Use your doubles addition and associated subtraction facts to simplify each expression.

$a + a = \underline{\hspace{2cm}}$

$3y + 3y = \underline{\hspace{2cm}}$

$4b - 2b = \underline{\hspace{2cm}}$

$8z - 4z = \underline{\hspace{2cm}}$

$5c + 5c = \underline{\hspace{2cm}}$

$2a + 2b = \underline{\hspace{2cm}}$

$10x - 5x = \underline{\hspace{2cm}}$

$10x - 5y = \underline{\hspace{2cm}}$

★ Part H: Simplify and Solve Equations

Now use your doubles facts to first simplify and then solve each equation.

$a + a = 8$

$3c + 3c = 6$

$2a = 8$

$\underline{\hspace{2cm}} = 6$

$a = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$10b - 5b = 10$

$8d - 4d = 32$

$5b = 10$

$\underline{\hspace{2cm}} = 32$

$b = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

★ Part I: Add and Subtract Fractions

Use your doubles facts to help you solve each calculation.

$$\frac{1}{2} + \frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{2}{6} + \frac{2}{6} = \underline{\hspace{2cm}}$$

$$\frac{2}{3} - \frac{1}{3} = \underline{\hspace{2cm}}$$

$$\frac{6}{5} - \frac{3}{5} = \underline{\hspace{2cm}}$$

$$\frac{3}{5} + \frac{3}{5} = \underline{\hspace{2cm}}$$

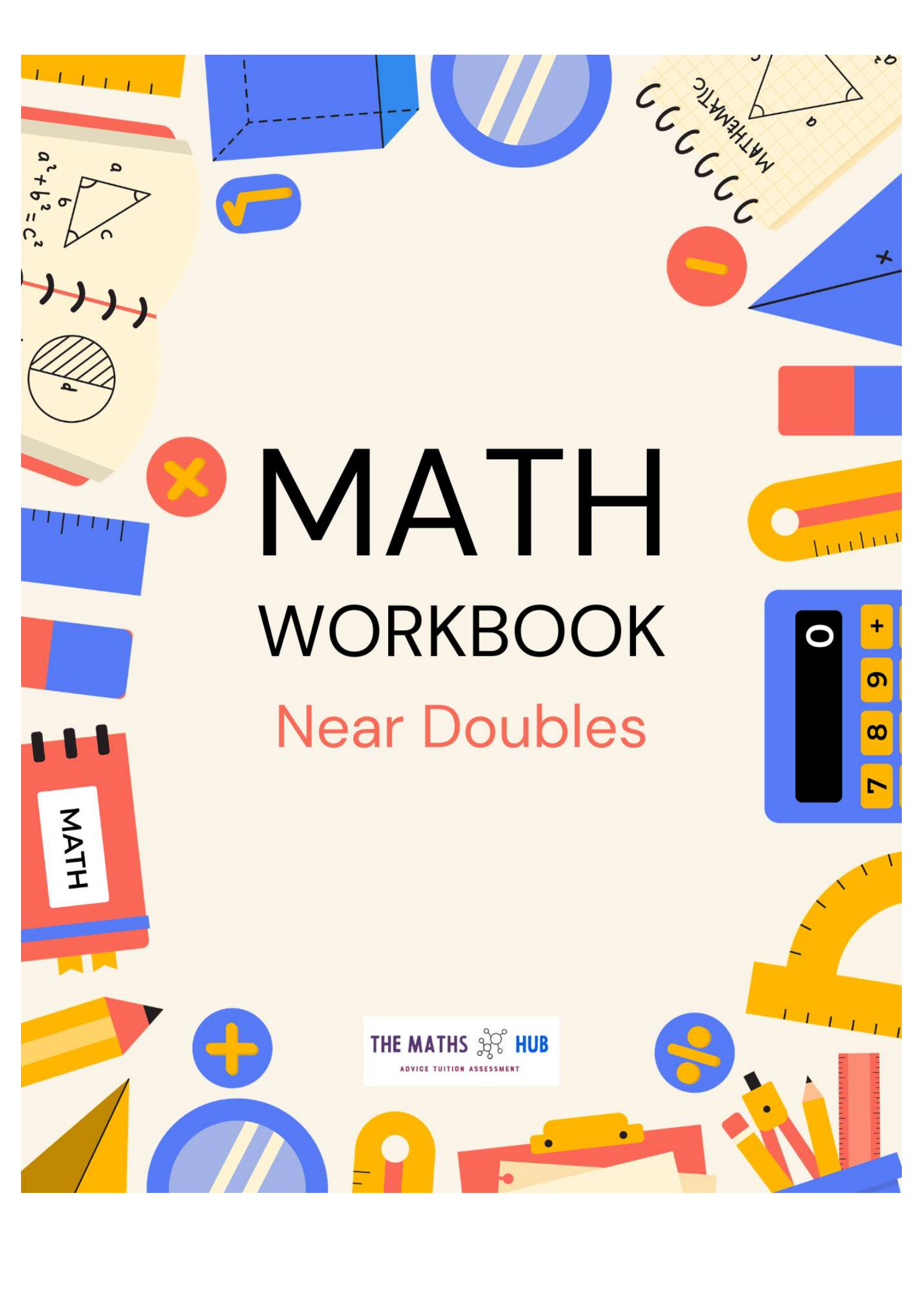
$$\frac{2}{4} + \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{4}{4} - \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{4}{6} - \frac{2}{6} = \underline{\hspace{2cm}}$$

Answer Key

Part	Answers
A	2, 4, 6, 8, 10, 1, 2, 3, 4, 5
B	1, 2, 2, 3, 3, 4, 4, 5, 5, 1
C	8, 4, 8 – 4, Double 4
D	4, 4, 10, 5
E	28, 33, 44, 14, 38, 64, 84, 23
F	40, 20, 80, 30, 20, 40, 100, 50
G	2a, 2b, 10c, 5x, 6y, 4z, 2a + 2b, 10x – 5y
H	a = 4, b = 2, c = 1, d = 8
I	$\frac{2}{2}, \frac{1}{3}, \frac{6}{5}, \frac{2}{4}, \frac{4}{6}, \frac{3}{5}, \frac{4}{4}, \frac{2}{6}$

The background of the cover is a light cream color, framed by a decorative border of various mathematical symbols and school supplies. These include a yellow ruler at the top left, a blue cube, a blue circle with yellow stripes, a yellow notebook with a triangle diagram and the equation $a^2 + b^2 = c^2$, a blue circle with a yellow checkmark, a yellow circle with a minus sign, a blue triangle with a plus sign, a red and blue rectangular block, a yellow ruler, a blue calculator with yellow buttons, a yellow protractor, a red notebook with a 'MATH' label, a yellow pencil, a blue circle with a plus sign, a blue circle with a percentage sign, a yellow pencil, a red ruler, and a yellow pencil. The main title is centered in the middle of the page.

MATH

WORKBOOK

Near Doubles

THE MATHS  HUB
ADVICE TUITION ASSESSMENT

Near Doubles Facts Within 10

Use the cue cards and appendix resources when needed. Choose representations that help you explain your thinking and show your strategy.

Part A: Addition and Subtraction Facts

Use your near doubles facts to solve the calculations.

$3 + 4 = \underline{\quad}$

$\underline{\quad} = 3 + 2$

$\underline{\quad} = 5 - 2$

$5 - 3 = \underline{\quad}$

$4 + 5 = \underline{\quad}$

$\underline{\quad} = 5 + 4$

$\underline{\quad} = 7 - 4$

$7 - 3 = \underline{\quad}$

$2 + 3 = \underline{\quad}$

$\underline{\quad} = 1 + 2$

$\underline{\quad} = 9 - 5$

$9 - 4 = \underline{\quad}$

$2 + 1 = \underline{\quad}$

$\underline{\quad} = 4 + 3$

$\underline{\quad} = 3 - 1$

$3 - 2 = \underline{\quad}$

Part B: Missing Number

Use your near doubles facts to help you. Write the missing number on each line.

$$\underline{\quad} + 4 = 9$$

$$5 - \underline{\quad} = 2$$

$$9 - \underline{\quad} = 5$$

$$\underline{\quad} + 1 = 3$$

$$3 = \underline{\quad} + 2$$

$$7 - \underline{\quad} = 4$$

$$3 - \underline{\quad} = 1$$

$$\underline{\quad} + 2 = 3$$

$$\underline{\quad} + 3 = 7$$

$$5 - \underline{\quad} = 3$$

Part C: Challenge

Use your near doubles facts to solve the challenges.

Which double would help you solve $4 + 5$?

$3 + 3$ $4 + 4$ $5 + 5$

What is $4 + 5$? $\underline{\quad}$

Which double would help you solve $2 + 3$?

$1 + 1$ $2 + 2$ $5 + 5$

How could you work out $5 + 4$?

Double $3 + 1$ Double $4 + 1$ Double $5 + 1$

Part D: Word Problems

Read each word problem carefully. Use your near doubles facts to help you find the answer.

Mia has 3 reward points. She earns 4 more reward points. How many reward points does she have altogether?

Answer: _____

Tom has 7 game tokens. He spends 3 of them. How many game tokens does he have left?

Answer: _____

A video received 4 views in the morning and 5 more views later. How many views did it get altogether?

Answer: _____

Ella has 9 revision cards. She gives 5 away. How many revision cards does she have left?

Answer: _____

Use the space below to write and answer your own word problem.

Answer: _____

Extension Challenge

★ Part D: Add or Subtract a Single-Digit Number to/from a Two-Digit Number

Use what you know about near doubles to help you solve each calculation.

$23 + 4 = \underline{\quad}$

$52 + 3 = \underline{\quad}$

Which near doubles fact helped?

$29 - 5 = \underline{\quad}$

$35 - 3 = \underline{\quad}$

$63 + 4 = \underline{\quad}$

$44 + 5 = \underline{\quad}$

Which near doubles fact helped?

$17 - 4 = \underline{\quad}$

$39 - 4 = \underline{\quad}$

★ Part E: Add or Subtract Decade Numbers

Use your near doubles facts to help you add the decade numbers.

$30 + 40 = \underline{\quad}$

$40 + 50 = \underline{\quad}$

$70 - 40 = \underline{\quad}$

$90 - 40 = \underline{\quad}$

$20 + 30 = \underline{\quad}$

$10 + 20 = \underline{\quad}$

$90 - 50 = \underline{\quad}$

$30 - 20 = \underline{\quad}$

★ Part F: Simplify Expressions

Use your near doubles facts to simplify each expression.

$2a + a = \underline{\hspace{2cm}}$

$3y + 4y = \underline{\hspace{2cm}}$

$7b - 3b = \underline{\hspace{2cm}}$

$9z - 5z = \underline{\hspace{2cm}}$

$5c + 4c = \underline{\hspace{2cm}}$

$2a + 3b = \underline{\hspace{2cm}}$

$9x - 5x = \underline{\hspace{2cm}}$

$5x - 2y = \underline{\hspace{2cm}}$

★ Part G: Simplify and Solve Equations

Now use your doubles facts to first simplify and then solve each expression.

$a + 2a = 9$

$3c + 4c = 21$

$3a = 9$

$\underline{\hspace{2cm}} = 21$

$a = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$9b - 5b = 12$

$5d - 2d = 18$

$4b = 12$

$\underline{\hspace{2cm}} = 18$

$b = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

★ Part H: Add and Subtract Fractions

Use your near doubles facts to solve the calculations.

$$\frac{3}{10} + \frac{4}{10} = \underline{\hspace{2cm}}$$

$$\frac{4}{12} + \frac{5}{12} = \underline{\hspace{2cm}}$$

$$\frac{9}{3} - \frac{5}{3} = \underline{\hspace{2cm}}$$

$$\frac{9}{12} - \frac{4}{12} = \underline{\hspace{2cm}}$$

$$\frac{2}{8} + \frac{3}{8} = \underline{\hspace{2cm}}$$

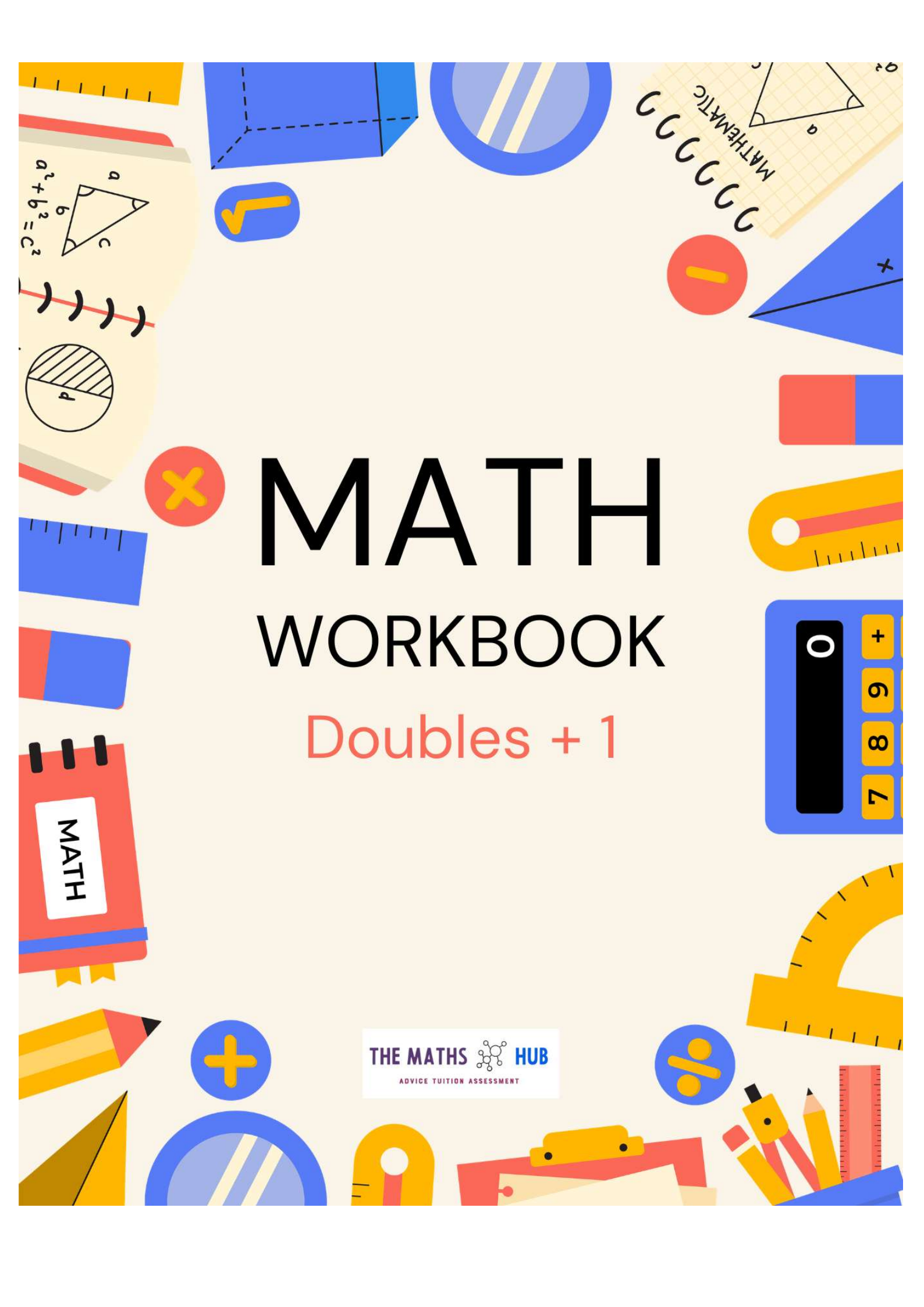
$$\frac{1}{6} + \frac{2}{6} = \underline{\hspace{2cm}}$$

$$\frac{7}{8} - \frac{4}{8} = \underline{\hspace{2cm}}$$

$$\frac{6}{6} - \frac{3}{6} = \underline{\hspace{2cm}}$$

Answer Key

Part	Answers
A	7, 3, 9, 3, 5, 4, 3, 2, 5, 2, 9, 4, 3, 5, 7, 1
B	5, 4, 1, 2, 4, 3, 2, 3, 1, 2
C	4 + 4, 9, 2 + 2, Double 4 + 1
D	27, 32, 49, 13, 3 + 4, 55, 24, 67, 3 + 4, 35
E	70, 30, 50, 40, 90, 50, 30, 10
F	3a, 4b, 9c, 4x, 7y, 4z, 2a + 3b, 5x - 2y
G	a = 3, b = 3, c = 3, d = 6
H	$\frac{7}{10}$, $\frac{4}{3}$, $\frac{5}{8}$, $\frac{3}{8}$, $\frac{9}{12}$, $\frac{5}{12}$, $\frac{3}{6}$, $\frac{3}{6}$



MATH WORKBOOK

Doubles + 1

THE MATHS  HUB
ADVICE TUITION ASSESSMENT

Doubles + 1

Use the cue cards and appendix resources when needed. Choose representations that help you explain your thinking and show your strategy.

Remember

Example

$$2 + 3 =$$

$$\text{Double } 2 = 4$$

$$4 + 1 = 5$$

Therefore:

$$2 + 3 = 5$$

Part A: Practise the Doubles

Complete the doubles.

$$1 + 1 = \underline{\quad}$$

$$2 + 2 = \underline{\quad}$$

$$3 + 3 = \underline{\quad}$$

$$4 + 4 = \underline{\quad}$$

$$5 + 5 = \underline{\quad}$$

Part B: Use a Double Then Add 1

$1 + 2 =$

Double 1 = _____

_____ + 1 = _____

Therefore:

$1 + 2 =$ _____

$2 + 3 =$

Double 2 = _____

_____ + 1 = _____

Therefore:

$2 + 3 =$ _____

$4 + 5 =$

Double 4 = _____

_____ + 1 = _____

Therefore:

$4 + 5 =$ _____

$5 + 6 =$

Double 5 = _____

_____ + 1 = _____

Therefore:

$5 + 6 =$ _____

Part C: Which Double Will Help?*Write the double that will help.*

$1 + 2 \rightarrow$ Double _____

$2 + 3 \rightarrow$ Double _____

$3 + 4 \rightarrow$ Double _____

$4 + 5 \rightarrow$ Double _____

$5 + 6 \rightarrow$ Double _____

Part D: Fill in the Missing Steps

$2 + 3 =$

$(2 + 2) + 1$

$4 + 1 = 5$

$3 + 4 =$

$(\quad + \quad) + 1$

$\quad + 1 = \quad$

$4 + 5 =$

$(\quad + \quad) + 1$

$\quad + 1 = \quad$

$5 + 6 =$

$(\quad + \quad) + 1$

$\quad + 1 = \quad$

Part E: Use the Strategy

$5 + 4 = \quad$

$\text{Double } 4 = 8$

$8 + 1 = 9$

$\text{Answer} = 9$

$2 + 3 = \quad$

$3 + 2 = \quad$

$2 + 1 = \quad$

$3 + 4 = \quad$

$4 + 3 = \quad$

Part F: Explain Your Thinking

Example

$$4 + 5 = \underline{\quad}$$

✓ *I doubled 4.*

✓ *I added 1 more.*

✓ *My answer is 9.*

$$2 + 3 = \underline{\quad}$$

☐ I doubled $\underline{\quad}$

☐ I added $\underline{\quad}$ more.

☐ My answer is $\underline{\quad} + \underline{\quad} = \underline{\quad}$

$$5 + 6 = \underline{\quad}$$

☐ I doubled $\underline{\quad}$

☐ I added $\underline{\quad}$ more.

☐ My answer is $\underline{\quad} + \underline{\quad} = \underline{\quad}$

Part G: Challenge

Which strategy is more helpful?

$$4 + 5$$

☐ Counting on

☐ Double 4 and add 1

Explain why.

Sophia says: $4 + 5$

$$\text{Double } 4 = 8$$

$$8 + 1 = 10$$

Is Sophia correct?

Yes / No

Correct answer:

Without counting, what is: $6 + 7 =$ _____

Explain how you know.

Answer Key

Part	Answers
A	2, 4, 6, 8, 10
B	Double 1 = 2, $2 + 1 = 3$, $1 + 2 = 3$; Double 2 = 4, $4 + 1 = 5$, $2 + 3 = 5$; Double 3 = 6, $6 + 1 = 7$, $3 + 4 = 7$; Double 4 = 8, $8 + 1 = 9$, $4 + 5 = 9$; Double 5 = 10, $10 + 1 = 11$, $5 + 6 = 11$
C	1, 2, 3, 4, 5
D	$(3 + 3) + 1$, $6 + 1 = 7$; $(4 + 4) + 1$, $8 + 1 = 9$; $(5 + 5) + 1$, $10 + 1 = 11$
E	9, 5, 5, 3, 7, 7
F	$2 + 3 = 5$, doubled 2, added 1 more, $4 + 1 = 5$; $5 + 6 = 11$, doubled 5, added 1 more, $10 + 1 = 11$
G	Double 4 and add 1; No, $4 + 5 = 9$; 13, double 6 and add 1

Number Bonds of 10

ADVICE TUITION ASSESSMENT

Number Bonds to 10

Use the cue cards and appendix resources when needed. Choose representations that help you explain your thinking and show your strategy.

Part A: Addition and Subtraction Facts

Use your number bonds to 10 and related subtraction facts to solve the calculations.

$0 + 10 = \underline{\quad}$

$\underline{\quad} = 5 + 5$

$\underline{\quad} = 10 - 0$

$10 - 5 = \underline{\quad}$

$1 + 9 = \underline{\quad}$

$\underline{\quad} = 6 + 4$

$\underline{\quad} = 10 - 1$

$10 - 6 = \underline{\quad}$

$2 + 8 = \underline{\quad}$

$\underline{\quad} = 7 + 3$

$\underline{\quad} = 10 - 2$

$10 - 7 = \underline{\quad}$

$3 + 7 = \underline{\quad}$

$\underline{\quad} = 8 + 2$

$\underline{\quad} = 10 - 3$

$10 - 8 = \underline{\quad}$

$4 + 6 = \underline{\quad}$

$\underline{\quad} = 9 + 1$

Part B: Missing Number

Write the missing number on each line.

$$\underline{\quad\quad} + 10 = 10$$

$$10 - \underline{\quad\quad} = 0$$

$$\underline{\quad\quad} + 9 = 10$$

$$1 = 10 - \underline{\quad\quad}$$

$$\underline{\quad\quad} + 8 = 10$$

$$10 - \underline{\quad\quad} = 2$$

$$10 = \underline{\quad\quad} + 7$$

$$10 - \underline{\quad\quad} = 3$$

$$\underline{\quad\quad} + 6 = 10$$

$$10 - \underline{\quad\quad} = 4$$

$$10 = \underline{\quad\quad} + 5$$

$$5 = 10 - \underline{\quad\quad}$$

Part C: Fact Families

Complete each fact family.

Number Bond: 0 and 10

$$0 + 10 = \underline{\quad\quad}$$

$$10 + 0 = \underline{\quad\quad}$$

$$10 - 0 = \underline{\quad\quad}$$

$$10 - 10 = \underline{\quad\quad}$$

Number Bond: 1 and 9

$1 + 9 = \underline{\quad}$

$9 + 1 = \underline{\quad}$

$10 - 1 = \underline{\quad}$

$10 - 9 = \underline{\quad}$

Number Bond: 2 and 8

$2 + 8 = \underline{\quad}$

$8 + 2 = \underline{\quad}$

$10 - 2 = \underline{\quad}$

$10 - 8 = \underline{\quad}$

Number Bond: 3 and 7

$3 + 7 = \underline{\quad}$

$7 + 3 = \underline{\quad}$

$10 - 3 = \underline{\quad}$

$10 - 7 = \underline{\quad}$

Number Bond: 4 and 6

$4 + 6 = \underline{\quad}$

$6 + 4 = \underline{\quad}$

$10 - 4 = \underline{\quad}$

$10 - 6 = \underline{\quad}$

Number Bond: 5 and 5

$5 + 5 = \underline{\quad}$

$10 - 5 = \underline{\quad}$

$10 - 5 = \underline{\quad}$

$5 + 5 = \underline{\quad}$

Part D: Challenge

Use your knowledge of number bonds to 10 to solve the challenges.

Which number goes with 1 to make 10?

- ☐ 7 ☐ 9 ☐ 4

Which number goes with 6 to make 10?

- ☐ 2 ☐ 5 ☐ 4

Which number goes with 8 to make 10?

- ☐ 2 ☐ 3 ☐ 1

Which subtraction fact is part of the fact family for 7 and 3?

☐ $10 - 7 = 3$

☐ $10 - 5 = 5$

☐ $10 - 8 = 1$

True or False?

$4 + 6 = 10$ _____

$10 - 6 = 4$ _____

$9 + 2 = 10$ _____

$10 - 8 = 2$ _____

$7 + 3 = 10$ _____

$10 - 4 = 5$ _____

Tom says: $8 + 2 = 10$ so $8 + 3 = 10$

Is Tom correct? Yes / No

Explain.

Part E: Word Problems

Read each word problem carefully. Use your number bonds to 10 and related subtraction facts to help you find the answer.

Sam has 4 reward points. How many more points does he need to reach 10?

Answer: _____

Ava has 10 stickers. She gives 6 stickers to her friend. How many stickers does she have left?

Answer: _____

A video has 7 likes. How many more likes are needed to reach 10?

Answer: _____

Liam has 10 cubes. He gives away 8 cubes. How many cubes does he have left?

Answer: _____

Use the space below to write and answer your own number bond to 10 word problem.

Answer: _____

Extension Challenge

★ Part F: Add or Subtract Decade Numbers

Use what you know about bonds to 10 and associated subtraction facts to help you solve each calculation.

$70 + 30 = \underline{\quad}$

$100 - 50 = \underline{\quad}$

$100 - 20 = \underline{\quad}$

$90 + 10 = \underline{\quad}$

$50 + 50 = \underline{\quad}$

$100 - 70 = \underline{\quad}$

$100 - 80 = \underline{\quad}$

$20 + 80 = \underline{\quad}$

$40 + 60 = \underline{\quad}$

$100 - 40 = \underline{\quad}$

★ Part G: Calculate the Next Decade Number

Use your bonds to 10 to help you calculate the next decade number.

$17 + 3 = \underline{\quad}$

$35 + 5 = \underline{\quad}$

Which number bond helped?

The bond I used was:

$48 + 2 = \underline{\quad}$

☐ $1 + 9$

$50 - 10 = \underline{\quad}$

☐ $2 + 8$

☐ $3 + 7$

$69 + 1 = \underline{\quad}$

☐ $4 + 6$

☐ $5 + 5$

$74 + 6 = \underline{\quad}$

$26 + 4 = \underline{\quad}$

$86 + 4 = \underline{\quad}$

★ Part H: Subtracting From a Decade

Use your bonds to 10 to help you subtract from a decade number.

$20 - 7 = \underline{\quad}$

$70 - 3 = \underline{\quad}$

$50 - 4 = \underline{\quad}$

$60 - 5 = \underline{\quad}$

$30 - 8 = \underline{\quad}$

$90 - 2 = \underline{\quad}$

$80 - 6 = \underline{\quad}$

$100 - 7 = \underline{\quad}$

$40 - 9 = \underline{\quad}$

$10 - 8 = \underline{\quad}$

★ Part I: Simplify Expressions

Use your bonds to 10 and associated subtraction facts to simplify each expression.

$9a + a = \underline{\hspace{2cm}}$

$7y + 3y = \underline{\hspace{2cm}}$

$10b - 2b = \underline{\hspace{2cm}}$

$10z - 4z = \underline{\hspace{2cm}}$

$5c + 5c = \underline{\hspace{2cm}}$

$6a + 4b = \underline{\hspace{2cm}}$

$10x - 5x = \underline{\hspace{2cm}}$

$10x - 10y = \underline{\hspace{2cm}}$

★ Part J: Simplify and Solve Equations

Now use your bonds to 10 and associated subtraction facts to first simplify and then solve each equation.

$4a + 6a = 30$

$10c - 2c = 40$

$10a = 30$

$\underline{\hspace{1cm}} = 40$

$a = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$7b + 3b = 50$

$5d + 5d = 70$

$10b = 50$

$\underline{\hspace{1cm}} = 70$

$b = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

$10e - 6e = 24$

$9f + f = 90$

$4e = 24$

$10f = 90$

$e = \underline{\hspace{2cm}}$

$f = \underline{\hspace{2cm}}$

★ Part K: Add and Subtract Fractions

Use your bonds to 10 and associated subtraction facts to help you solve each calculation.

$$\frac{4}{2} + \frac{6}{2} = \underline{\hspace{2cm}}$$

$$\frac{1}{6} + \frac{9}{6} = \underline{\hspace{2cm}}$$

$$\frac{10}{3} - \frac{3}{3} = \underline{\hspace{2cm}}$$

$$\frac{10}{5} - \frac{5}{5} = \underline{\hspace{2cm}}$$

$$\frac{8}{5} + \frac{2}{5} = \underline{\hspace{2cm}}$$

$$\frac{5}{4} + \frac{5}{4} = \underline{\hspace{2cm}}$$

$$\frac{10}{4} - \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{10}{6} - \frac{1}{6} = \underline{\hspace{2cm}}$$

Answer Key

Part	Answers
A	10, 10, 10, 9, 10, 8, 10, 7, 10, 6, 10, 5, 10, 4, 10, 3, 10, 2, 10, 1
B	0, 1, 2, 3, 4, 5, 10, 9, 8, 7, 6, 5
C	10, 10, 10, 0, 10, 10, 9, 1, 10, 10, 8, 2, 10, 10, 7, 3, 10, 10, 6, 4, 10, 5, 5, 10
D	9, 4, 2, $10 - 7 = 3$, True, True, False, True, True, False, Tom is not correct. $8 + 3 = 11$. The number bond to 10 is $8 + 2$.
E	6, 4, 3, 2, 7
F	100, 80, 100, 20, 100, 50, 100, 30, 100, 60
G	10, 20, 30, 40, 50, 40, 70, 80, 90, 90
H	13, 46, 22, 74, 31, 67, 55, 88, 93, 2
I	$10a$, $8b$, $10c$, $5x$, $10y$, $6z$, $6a + 4b$, $10x - 10y$
J	$a = 3$, $b = 5$, $e = 6$, $c = 5$, $d = 7$, $f = 9$
K	$\frac{10}{2}$, $\frac{7}{3}$, $\frac{10}{5}$, $\frac{8}{4}$, $\frac{10}{6}$, $\frac{5}{5}$, $\frac{10}{4}$, $\frac{9}{6}$

Appendices

The resources in this section may be used to support learning throughout the workbook.

Appendix 1. Mathematics Resources

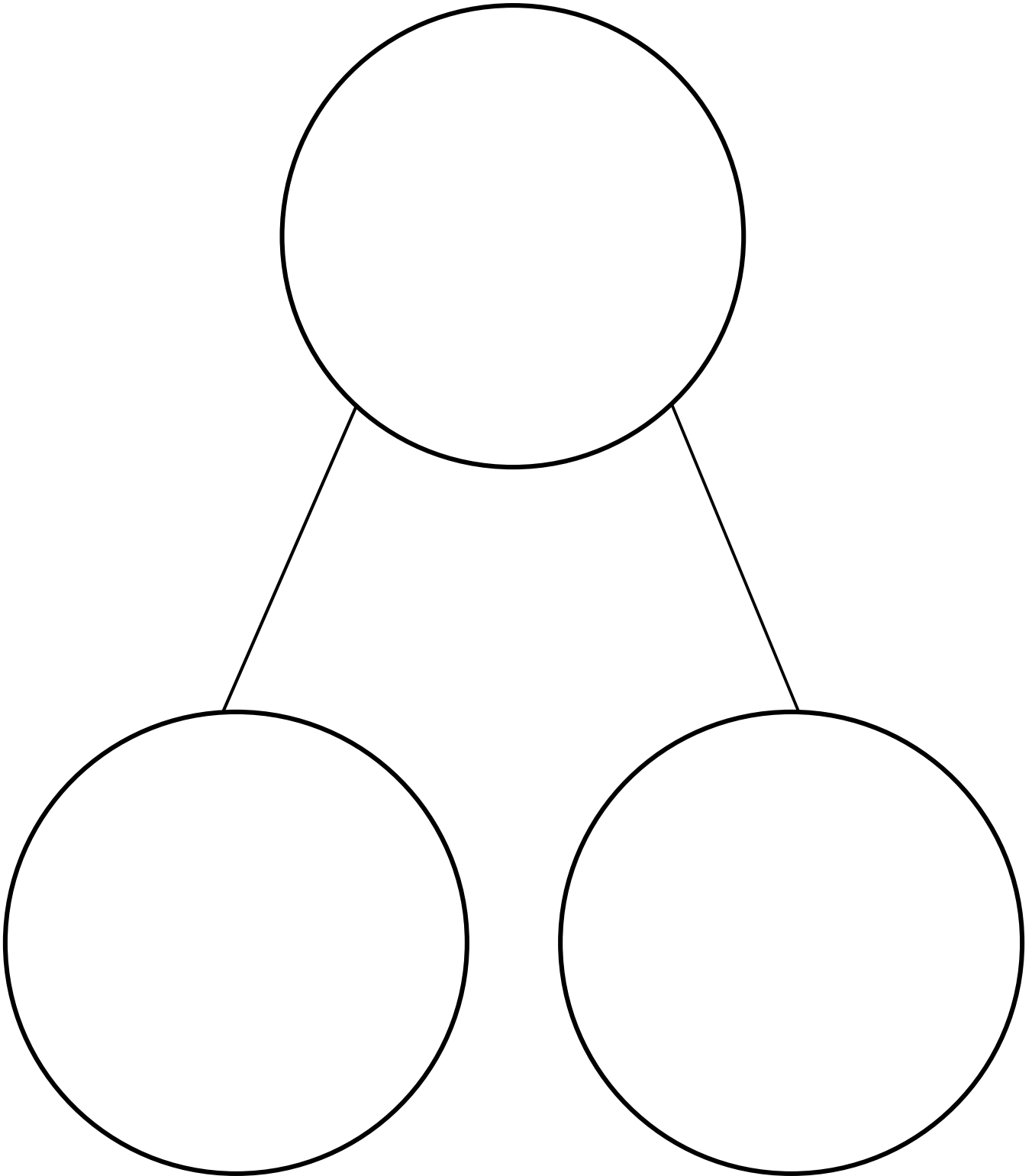
Resource	Link
Algebra Tiles	Open Resource
Base-10	Open Resource
Counters	Open Resource
Cuisenaire Rods	Open Resource
Fraction Strips	Open Resource
Number Frames	Open Resource

Appendix 2. Problem Solving Mat

Write Write the calculation, circle the operation, and highlight the whole and the parts. When you have completed all other boxes, state your final answer.	Show Show the problem using suitable manipulatives (e.g., counters, base-10, Cuisenaire rods, algebra tiles, fraction strips) and models (e.g., part-part-whole, frame, bar). Sketch your representation below.
Explain Explain your thinking: why you chose this strategy and what other strategies were possible.	Build Show your thinking on a number line and sketch it below.

Problem Solving Mat

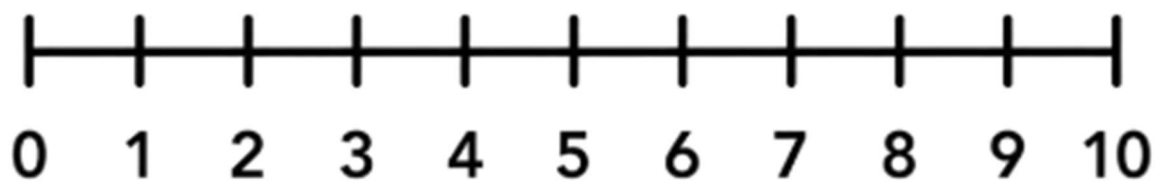
Appendix 3. Part-Part-Whole Model



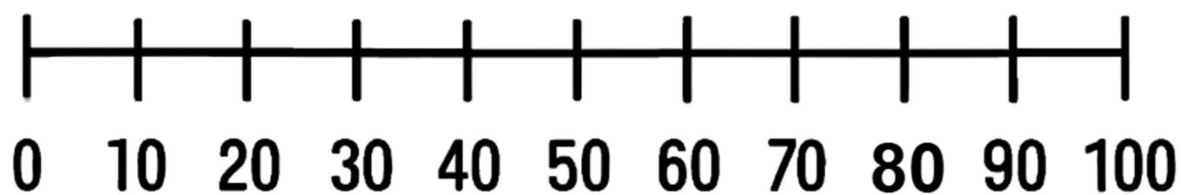
Appendix 4. Number Frames

Appendix 5. Number Lines

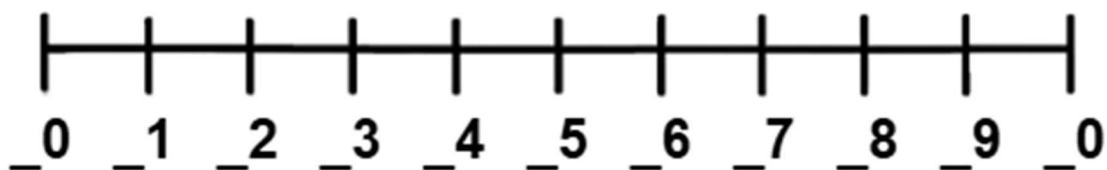
Number Line to 10



Decades Number Line



Make Your Own Number



Number Line for Fractions

