THT.

# THT WORKSHEETS

Australian Curriculum

# Year 5 Mathematics

## Learning Pack

Number Sense & Mental Strategies

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**Student Name:** _____

**Date:** _____

**Recommended Time:** 45–50 minutes

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# Why This Learning Pack Matters

Strong number sense helps students solve problems accurately, choose efficient strategies and recognise when an answer is reasonable. These skills form the foundation for almost every area of mathematics, both in primary school and beyond.

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# Learning Outcomes

By completing this Learning Pack, students will:

- Use efficient mental and written calculation strategies.
- Estimate answers before calculating.
- Apply number knowledge in real-life situations.
- Explain and justify mathematical reasoning.
- Solve multi-step problems confidently.

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# Instructions

- Answer every question.
- Show all working.
- Write units where required.
- Explain your reasoning whenever asked.

# SECTION A — FOUNDATIONS

## Question 1

Without using a calculator, answer the following.

a) 198 + 347

b) 25 × 36

c) 4,998 + 2,003

d) 1,200 ÷ 24

For **one** question, explain why you chose your method.

## Question 2

Estimate each answer **before** calculating exactly.

a) 398 + 607

Estimate: _____

Exact answer: _____

b) 51 × 19

Estimate: _____

Exact answer: _____

Which estimate was closer? Explain why.

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## Question 3

Arrange these numbers from **smallest to largest**.

3,502

3,250

3,520

3,205

Explain how you decided.

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## Question 4

Decide whether each statement is **True** or **False**.

If it is false, correct it.

a) 3,999 + 1 = 4,000

b) Every multiple of 10 is also a multiple of 5.

c) Doubling an odd number always gives an even number.

d) 250 is one quarter of 1,000.

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# SECTION B — APPLYING MATHEMATICS

## Question 5

A Year 5 excursion costs **$18.50** per student.

Twenty-seven students are attending.

a) How much money should the school collect?

b) The school has already collected **$350**.

How much more money is required?

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## Question 6

A school is organising food hampers.

Each hamper contains **6 food items**.

There are **157 food items** available.

a) How many complete hampers can be packed?

b) How many food items will remain?

c) Another **11 items** are donated.

Will there now be enough to make another complete hamper?

Explain.

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## Question 7

A rectangular garden measures **18 m** by **7 m**.

a) Find the perimeter.

b) Find the area.

Fencing costs **$24 per metre**.

c) Calculate the total fencing cost.

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## Question 8

The table shows points scored at the school athletics carnival.

| House | Points |
|---|---|
| Banksia | 184 |
| Acacia | 193 |
| Waratah | 181 |
| Wattle | 176 |

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Answer the following.

a) Which house won?

b) How many more points did the winning house score than the last-placed house?

c) How many points were scored altogether?

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## Question 9

A mystery number:

- is greater than 300,
- is less than 400,
- is divisible by 5,
- has a digit sum of 9.

Find all possible mystery numbers.

Show how you know your answer.

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# SECTION C — MATHEMATICAL THINKING

## Question 10

Two students solved the same question.

198 + 347

Student A

198 + 300 + 47

Student B

200 + 345

Both obtained the correct answer.

Which method would you choose?

Explain why.

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## Question 11

Without calculating exactly, decide which product is larger.

49 × 21

or

50 × 20

Explain your reasoning.

Then calculate both answers to check your prediction.

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## Question 12

A school buys footballs in packs of **6**.

There are **154 students**.

What is the smallest number of packs the school should buy?

Explain why buying one fewer pack would not be enough.

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## Question 13

A number is divisible by both **2** and **5**.

Must it always be divisible by **10**?

Explain your reasoning using examples.

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# SECTION D — MASTER CHALLENGE

## Question 14

Five consecutive whole numbers have a total of **215**.

Find all five numbers.

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Explain your method.

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Question 15

Six students each shake hands **once** with every other student.

How many handshakes take place altogether?

You may draw a diagram if it helps.

Explain how you know your answer is correct.

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# Reflection

Before checking the solutions...

**One question I found most challenging was:**

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**One strategy I will use again is:**

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**One thing I learned today is:**

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