

THT WORKSHEETS

Australian Curriculum

Year 11 General Mathematics

Learning Pack

Financial Mathematics – Loans, Investments & Decision Making

Student Name: _____

Date: _____

Recommended Time: 60 minutes

Why This Learning Pack Matters

Financial Mathematics equips students with the skills needed to make informed financial decisions throughout life. Whether comparing loans, understanding interest, evaluating savings plans or interpreting financial information, these concepts extend far beyond the classroom and into everyday decision-making.

Learning Outcomes

By completing this Learning Pack, students will:

- calculate simple and compound interest
- compare financial products
- interpret financial information
- evaluate borrowing and investment options

THT Worksheets

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- justify financial decisions using mathematics
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Instructions

- Answer every question.
 - Show all calculations clearly.
 - Round money to the nearest cent where appropriate.
 - Give reasons whenever asked to justify a decision.
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SECTION A — FOUNDATIONS

Question 1

A savings account earns **4.2% simple interest per annum**.

Emily deposits **\$7,500** for **3 years**.

Calculate:

- a) the total interest earned
 - b) the final balance.
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Question 2

A jacket originally costs **\$185**.

It is advertised at **25% off**, followed by a further **10% off the discounted price**.

Calculate the final selling price.

Question 3

A purchase of **\$1,980** includes **10% GST**.

Calculate:

- a) the GST component

b) the price before GST.

Question 4

A bank offers **5.1% p.a. compound interest**, compounded annually.

An investment of **\$12,000** is left untouched for **4 years**.

Calculate the final balance.

SECTION B — APPLYING MATHEMATICS

Question 5

Two savings accounts are available.

Account	Interest Rate
A	4.8% simple interest
B	4.5% compound interest (compounded annually)

A customer wishes to invest **\$20,000** for **5 years**.

Calculate the final amount for each account.

Which account provides the better return?

Question 6

Jordan wants to buy a laptop costing **\$2,400**.

Option A

Pay in full today.

Option B

Pay a **20% deposit**, then repay the balance over **12 months** with **8% simple interest**.

Calculate:

a) the deposit

- b) the amount borrowed
 - c) the total amount repaid
 - d) how much more Option B costs than paying upfront.
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Question 7

A family budget allocates:

Category	Amount
Housing	\$620
Groceries	\$280
Transport	\$170
Utilities	\$140
Entertainment	\$90

The family's weekly income is **\$1,450**.

- a) Calculate the total weekly expenses.
 - b) Calculate the weekly savings.
 - c) What percentage of the weekly income is saved?
-

Question 8

A travel company advertises:

Save 15% today!

The original holiday package costs **\$4,850**.

After the discount, a booking fee of **\$85** is added.

Calculate the final amount payable.

SECTION C — MATHEMATICAL THINKING

Question 9

A bank advertises:

Earn 5% interest!

A second bank advertises:

Earn 4.8% interest compounded monthly!

Without calculating, explain why the advertisement alone does **not** provide enough information to decide which investment is better.

Question 10

A student claims:

"Receiving two consecutive discounts of 20% is the same as receiving one discount of 40%."

Is the statement correct?

Support your answer with calculations.

Question 11

A business owner must choose between two suppliers.

Supplier A

10% discount

Free delivery

Supplier B

15% discount

\$65 delivery fee

A product costs **\$980**.

Determine which supplier offers the lower overall cost.

Justify your decision.

Question 12

A savings account advertises a higher interest rate than another account.

Give **two reasons** why it may still **not** be the better financial choice.

SECTION D — FINANCIAL DECISION CHALLENGE

Question 13

Taylor has **\$15,000** to invest.

Investment A

- 4.9% compound interest per annum

Investment B

- 5.2% simple interest per annum

Taylor plans to leave the money invested for **6 years**.

Calculate the final value of each investment.

Recommend the better option and justify your recommendation.

Question 14

A family wants to purchase a used car costing **\$18,000**.

They can choose between:

Option A

THT.

- Pay cash today using savings.

Option B

- Pay a **15% deposit**.
- Finance the remaining balance at **7% simple interest over 5 years**.

Ignoring inflation and investment opportunities, discuss the financial advantages and disadvantages of each option before recommending which option you believe is more appropriate.

Support your recommendation with calculations.

Reflection

Before checking the solutions...

The financial concept I understand best is:

One financial skill I would like to improve is:

One decision I made using mathematics today was:
