Financial Mathematics
Lesson 1

Find:

a 25% of 128 **b** 155% of 60

SOLUTION	EXPLANATION
a $25\% \text{ of } 128 = \frac{25}{100} \times \frac{128}{1}$	Write the percentage as a fraction over 100.
$= \frac{1}{4} \times \frac{128}{1} = 32$	Cancel and simplify.
	Alternatively, $25\% \text{ of } 128 = \frac{1}{4} \text{ of } 128 = 128 \div 4 = 32$.
b $155\% \text{ of } 60 = \frac{155}{100} \times \frac{60}{1}$	Write the percentage as a fraction over 100.
$= \frac{155}{5} \times \frac{3}{1}$	Cancel and simplify.
$= \frac{31}{1} \times \frac{3}{1} = 93$	

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 4”

- Finding certain percentage of a quantity

- **a) 50% of 36**
- **b) b20% of 45**
- **c) 25% of 68**
- **d) 32% of 50**
- **e) 5% of 60**

f) 2% of 150

g) 14% of 40

h) 70% of 250

i) 15% of 880

j) 45% of 88

k) 80% of 56

l) 92% of 40

Extension:

Find the following percentages of the following:

- a) 28 laps of a 50-lap race completed

- b) Saved $450 towards a $600 guitar

- c) 172 fans in a train carriage of 200 people

- d) Level 7 completed of a 28-level video game

- e) 36 students absent out of 90 total

Financial Mathematics
Lesson 2

Find the new value when:

a \$160 is increased by 40%

b \$63 is decreased by 20%

SOLUTION	EXPLANATION
a $40\% \text{ of } \$160 = \frac{40}{100} \times \frac{160}{1} = \$64$	Calculate 40% of \$160.
	Cancel and simplify.
New price = \$160 + \$64 = \$224	New price = original price + increase
Alternative method:	
$100\% + 40\% = 140\% = 1.4$	The new value is 140% of the old value.
$\$160 \times 1.4 = \$224$	
b $20\% \text{ of } \$63 = \frac{20}{100} \times \frac{63}{1} = \$12.60$	Calculate 20% of \$63.
	Cancel and simplify.
New price = \$63 – \$12.60 = \$50.40	New price = original price – decrease

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 5”

Activity

Find the new value when:

a $400 is increased by 10%

b $240 is increased by 15%

c $80 is decreased by 20%

d $42 000 is decreased by 2%

e $5000 is increased by 8%

f $60.60 is increased by 60%

g $15 is decreased by 10%

h $84 is decreased by 40%

- **Extension:**

Calculate the new price when:

- **a** an item marked at $80 is discounted by 50%

- **b** an item marked at $30 is marked up by 20%

- **c** an item marked at $45 is reduced by 10%

- **d** an item marked at $5 is increased by 200%

Financial Mathematics
Lesson 3

Find the cost of a $860 television that has been discounted by 25%.

SOLUTION	EXPLANATION
a Discount = 25% of $860	Calculate 25% discount.
$= \frac{25}{100} \times \frac{860}{1} = \$215$	Cancel and simplify.
Selling price = $860 – $215	Selling price = cost price – discount
= $645	

Find the cost of a \$250 microwave oven that has been marked up by 12%.

Mark-up = 12% of \$250

$$= \frac{12}{100} \times \frac{250}{1} = \$30$$

Calculate 12% of \$250.

Cancel and simplify.

Selling price = \$250 + \$30

= \$280

Selling price = cost price + mark-up

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 6”

Activity

1. Calculate the new price when:

a an item marked at $15 is discounted by $3
b an item marked at $25.99 is marked up by $8
c an item marked at $17 is reduced by $2.50
d an item marked at $180 is increased by $45

2. Calculate the new price when:
a an item marked at $80 is discounted by 50%
b an item marked at $30 is marked up by 20%
c an item marked at $45 is reduced by 10%
d an item marked at $5 is increased by 200%

- **Extension:**
- Shop A is advertising a watch for $350 with a discount of $80.
- Shop B is advertising the same watch for $400 with a 30% discount.

Calculate the selling price of the watch in each shop.

Financial Mathematics
Lesson 4

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 7”

Activity

1. Find the new value when:

a. $400 is increased by 10%
b. $240 is increased by 15%
c. $80 is decreased by 20%
d. $42 000 is decreased by 2%
e. $5000 is increased by 8%
f. $60.60 is increased by 60%
g. $15 is decreased by 10%
h. $84 is decreased by 40%

2. Find the cost of the following.

a. A $600 television that has been discounted by 20%
b. A $150 lipstick that has been reduced by 15%
c. A $52 jumper that has depreciated by 25%
d. A $80 framed Pink poster that has been marked up by 30%
e. A $14 meal that has been increased by 10%
f. A $420 stereo that has been marked up by 50%

- **Extension:**

Shop C and shop D purchase Extreme Game packages at a cost price of $60.

- Shop C has a mark-up of $20 for retailers and shop D has a mark-up of 25%.
- Calculate the selling price for the Extreme Game package at each shop.

Financial Mathematics
Lesson 5

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 8”

Activity

1. Find the new value when:

a. $400 is increased by 10%
b. $240 is increased by 15%
c. $80 is decreased by 20%
d. $42 000 is decreased by 2%
e. $5000 is increased by 8%
f. $60.60 is increased by 60%
g. $15 is decreased by 10%
h. $84 is decreased by 40%

2. Find the cost of the following.

a. A $600 television that has been discounted by 20%
b. A $150 lipstick that has been reduced by 15%
c. A $52 jumper that has depreciated by 25%
d. A $80 framed Pink poster that has been marked up by 30%
e. A $14 meal that has been increased by 10%
f. A $420 stereo that has been marked up by 50%

- **Extension:**

Shop C and shop D purchase Extreme Game packages at a cost price of $60.

- Shop C has a mark-up of $20 for retailers and shop D has a mark-up of 25%.
- Calculate the selling price for the Extreme Game package at each shop.

Lesson 6

Title Page - GST

BY enter your name here

What does GST stand for?

What is GST?

What is the rate of GST in Australia?

The role of GST in Australia

Why does Australia need GST?

What are some benefits of GST?

Dose GST apply to all goods and services

Financial Mathematics
Lesson 7

About GST

- The Goods and Services Tax or GST is a broad–based tax on most goods and services sold or consumed in Australia.

- The advertised price of the goods in shops, restaurants and other businesses must include the GST. At present in Australia the GST is set at 10%.

- Not all goods and services are taxed under the GST. Items that are exempt from the goods and services tax include: most basic foods, some education courses and some medical and health care products and services.

Calculate the GST payable on:

a a table that a manufacturer values at $289

b a bill from a landscape gardener of $2190.

SOLUTION	EXPLANATION
a $\frac{10}{100} \times 289 = 28.9$	GST is 10% of the value.
The GST is $28.90.	Find 10% of $289.
b $\frac{10}{100} \times 2190 = 219$	Find 10% of $2190.
The GST is $219.	

Activity

- Complete the questions on google document named “Financial Mathematics Lesson 9”

Activity

- Without using a calculator, evaluate the following.

a. 10% of $50
b. 10% of $160
c. 10% of $250
d. 10% of $700
e. 10% of $15
f. 10% of $88
g. 10% of $5
h. 10% of $2.50

- Calculate the GST payable on goods priced at:

a. $680
b. $4000
c. $550
d. $28
e. $357
f. $5.67

- Calculate the final price, including the GST, on items priced at:

a. $700
b. $3000
c. $450
d. $34
e. $56 700
f. $4.90

- **Extension:**

- Complete this table, without using a calculator.

price (no GST)	10% GST	price (inc. GST)
$100		
$50		
$150		
$5		
$1		
$120		