IGCSE
Chapter 8
Money and Finance

Currency conversions

In 2017, 1 euro (€) could be exchanged for 1.50 Australian dollars (A$).

Example 1:

How many Australian dollars can be bought for €400?

€1 buys A$1.50.

€400 buys 1.50 × 400 = A$600.

Example 2:

How much does it cost to buy A$940?

A$1.50 costs €1.

A$940 costs $\frac{1 \times 940}{1.5}$ = €626.67.

Exercise 8.1

The table shows the exchange rate for €1 into various currencies.

Australia	1.50 Australian dollars (A$)
India	75 rupees
Zimbabwe	412 800 Zimbabwe dollars (ZIM$)
South Africa	15 rand
Turkey	4.0 Turkish lira (L)
Japan	130 yen
Kuwait	0.35 dinar
USA	1.15 US dollars (US$)

1 Convert the following:
   a €25 into Australian dollars   b €50 into rupees
   c €20 into Zimbabwean dollars   d €300 into rand
   e €130 into Turkish lira   f €40 into yen
   g €400 into dinar   h €150 into US dollars

2 How many euros does it cost to buy the following:
   a A$500   b 200 rupees
   c ZIM$10000   d 500 rand
   e 750 Turkish lira   f 1200 yen
   g 50 dinar   h US$150

Earnings

Net pay is what is left after deductions such as tax, insurance and pension contributions are taken from gross earnings.

Net pay = Gross pay – Deductions

A **bonus** is an extra payment sometimes added to an employee's **basic pay**.

In many companies there is a fixed number of hours that an employee is expected to work. Any work done in excess of this **basic week** is paid at a higher rate, referred to as **overtime**. Overtime may be 1.5 times basic pay, called **time and a half**, or twice basic pay, called **double time**.

Piece work is another method of payment. Employees are paid for the number of articles made, not for the time taken.

Example 3: Maria is paid €5 for every 12 plates that she makes. This is her record for one week. How much is she paid?

Mon	240
Tues	360
Wed	288
Thurs	192
Fri	180

$240 + 360 + 288 + 192 + 180 =$

$= 1260$

$1260 : 12 = 105$

$105 \times 5 = 525$

Example 4:	a. Miss Martinez works 38 hours for an hourly rate of $4.15. In addition she work 6 hours of overtime at time and a half. What is her total gross pay?

b Deductions amount to 32% of her total gross pay. What is her net pay?

$38 \times 4.15 =$

$= \$157.7$ basic pay

$4.15 \times 1.5 =$

$= 6.225$ hourly rate of overtime

$6 \times 6.225 = 37.35$ overtime pay

$157.7 + 37.35 = 195.05$ gross pay

Example 4:

a. Miss Martinez works 38 hours for an hourly rate of $4.15. In addition she work 6 hours of overtime at time and a half. What is her total gross pay?

b Deductions amount to 32% of her total gross pay. What is her net pay?

$$195.05 \times \frac{32}{100} =$$

$$= \$62.416 \text{ deductions}$$

$$195.05 - 62.416 =$$

$$= 132.634 \text{ net pay}$$

Exercise 8.2

1 Mr Ahmet's gross pay is $188.25. Deductions amount to $33.43. What is his net pay?

2 Miss Said's basic pay is $128. She earns $36 for overtime and receives a bonus of $18. What is her gross pay?

3 Mrs Hafar's gross pay is $203. She pays $54 in tax and $18 towards her pension. What is her net pay?

4 Mr Wong works 35 hours for an hourly rate of $8.30. What is his basic pay?

5 a Miss Martinez works 38 hours for an hourly rate of $4.15. In addition she works 6 hours of overtime at time and a half. What is her total gross pay?
   b Deductions amount to 32% of her total gross pay. What is her net pay?

6 Pepe is paid $5.50 for each basket of grapes he picks. One week he picks 25 baskets. How much is he paid?

7 Maria is paid €5 for every 12 plates that she makes. This is her record for one week.

Mon	240
Tues	360
Wed	288
Thurs	192
Fri	180

How much is she paid?

8 Neo works at home making clothes. The patterns and materials are provided by the company. The table shows the rates she is paid and the number of items she makes in one week:

Item	Rate	Number made
Jacket	25 rand	3
Trousers	11 rand	12
Shirt	13 rand	7
Dress	12 rand	0

a What are her gross earnings?
b Deductions amount to 15% of gross earnings. What is her net pay?

Profit and loss

Foodstuffs and manufactured goods are produced at a cost, known as the **cost price**, and sold at the **selling price**. If the selling price is greater than the cost price, a profit is made.

Example 5: A market trader buys oranges in boxes of 12 dozen for \$14.40 per box. He buy three boxes and sells all the oranges for 12c each. What is his profit or **loss**?

$3 \times \$14.40 =$

$= \$43.20$ cost price

$12 \times 12 =$

$= 144$ oranges of per box

$3 \times 144 \times 12c =$

$= \$51.84$ selling price

$51.84 - 43.20 =$

$= \$8.64$ profit

Sometimes, particularly during sales or promotions, the selling price is reduced; this is known as a **discount**.

Example 6: In a sale, a skirt usually costing $35 is sold at a 15% discount. What is the discount?

$$\$35 \times \frac{15}{100} =$$

$$= \$5.25 \text{ discount}$$

Exercise 8.3

1 A market trader buys peaches in boxes of 120. He buys 4 boxes at a cost price of $13.20 per box. He sells 425 peaches at 12c each. The rest are ruined. How much profit or loss does he make?

2 A shopkeeper buys 72 bars of chocolate for $5.76. What is his profit if he sells them for 12c each?

3 A holiday company charters an aircraft to fly to Malta at a cost of $22 000. It then sells 150 seats at $185 each and a further 35 seats at a 20% discount. Calculate the profit made per seat if the plane has 200 seats.

4 A car is priced at $7200. The car dealer allows a customer to pay a one-third deposit and 12 payments of $420 per month. How much extra does it cost the customer?

5 At an auction, a company sells 150 television sets for an **average** of $65 each. The production cost was $10 000. How much loss did the company make?

Percentage profit and loss

Most profits or losses are expressed as a percentage.

Profit or loss, divided by cost price, multiplied by 100 = % profit or loss.

Example 7: A woman buys a car for $7500 and sells it two years later for $4500. Calculate her loss over two years as a percentage of the cost price.

Cost price = $7500

Selling price = $4500

Loss = $3000

$$\frac{3000}{7500} \times 100 =$$

$$= 40\% \text{ loss}$$

When something becomes worth less over a period of time, it is said to **depreciate**.

Exercise 8.4

1 Find the depreciation of the following cars as a percentage of the cost price. (C.P. = cost price, S.P. = selling price)

   a VW   C.P. $4500   S.P. $4005

   b Rover   C.P. $9200   S.P. $6900

2 A company manufactures electrical items for the kitchen. Find the percentage profit on each of the following:

   a Fridge   C.P. $50   S.P. $65

   b Freezer   C.P. $80   S.P. $96

3 A developer builds a number of different types of house. Which type gives the developer the largest percentage profit?

   Type A   C.P. $40 000   S.P. $52 000

   Type B   C.P. $65 000   S.P. $75 000

   Type C   C.P. $81 000   S.P. $108 000

4 Students in a school organise a disco. The disco company charges $350 hire charge. The students sell 280 tickets at $2.25. What is the percentage profit?