World Currencies

Currency is the money system used in a country.
Coins and banknotes are two common forms of currency.

World Currencies

Currency names in use from 241 countries and territories around the world.

17%	🟦	Dollar = 100 cents
10%	🟩	Euro = 100 cents
10%	🟪	Franc = 100 centimes
6%	🟨	Pound = 100 pence
52%	🟧	Other currencies = 100
5%	🟥	Other ≠ 100

(Pie chart labelled: $, €, Fr, £, Other)
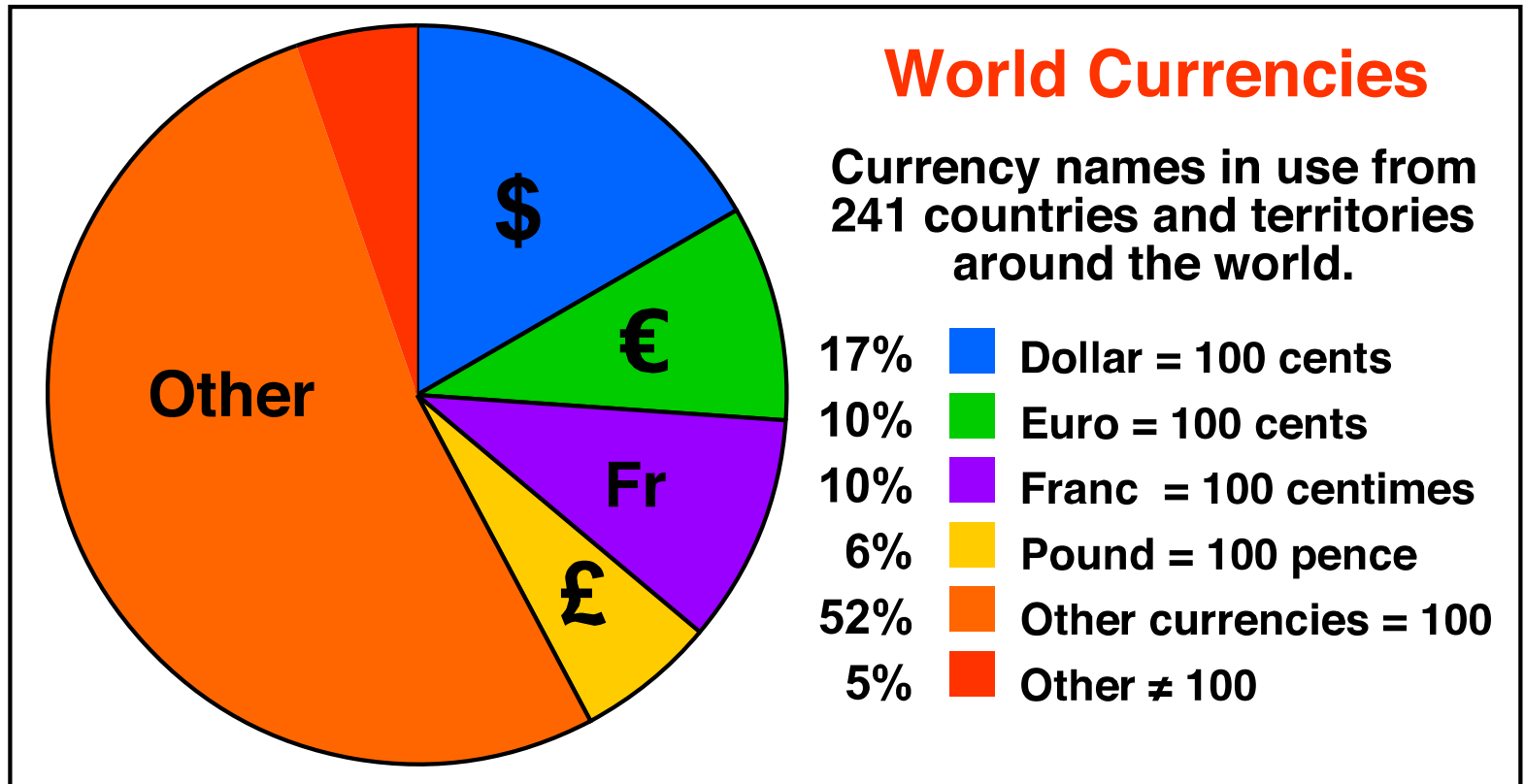
Some currencies are called by the same name or shared between countries. However each country usually designs their own individual coins and banknotes.

Most currencies (95%) use 100 small units to 1 base currency unit, e.g. $1 = 100 cents, €1 = 100 cents, £1 = 100 pence and ¥1 = 100 sen.

Exchanging money around the world.

Currencies are used to exchange money around the world. Each currency has its own value and the rate at which one currency can be exchanged for another is called the exchange rate.
Exchange rates are continually changing.

Exchange Rates for the Australian Dollar (AUD)
2 March 2018

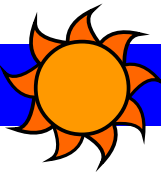|	
US dollar	$ 0.77
Euro	€ 0.63
UK pound	£ 0.56
Japanese yen	¥ 82.56

1 DOLLAR

Coins

Coins are pieces of hard material, usually metal, that are used as money.

The earliest coins are believed to be over 2500 years old.

A denomination is the value of a coin or banknote.

Coins come in different denominations.

● **Coin denominations for selected currencies.**

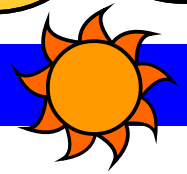| Denomination	1	2	5	10	20	25	50	Other
Australian cents			●	●	●		●	$1, $2
New Zealand cents				●	●		●	$1, $2
US cents	●		●	●		●	●	$1
Canadian cents	●		●	●		●	●	$1, $2
Euro cents	●	●	●	●	●		●	€1, € 2
UK pence	●	●	●	●	●		●	£1, £2, £5

Ordering coins

When coins are ordered they are usually arranged in order of value from smallest to greatest.

Examples

Coin order

UK

1p, 2p, 5p, 10p, 20p, 50p, £1, £2 £5

European Union

1c, 2c, 5c, 10c, 20c, 50c, €1, €2

US

1¢, 5¢, 10¢, 25¢ 50¢, $1

Penny Nickel Dime Quarter-Dollar Half-Dollar Dollar

Canada

1¢, 5¢, 10¢, 25¢, 50¢, $1, $2
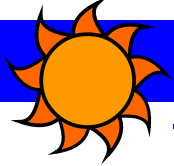
Australia

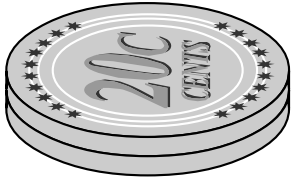5c, 10c, 20c, 50c , $1, $2

New Zealand

10c, 20c, 50c, $1, $2

Counting coins

To count coins, stack them in groups based on their value.

Examples

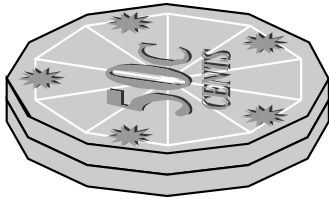### 1. Count by values, starting with the highest value.

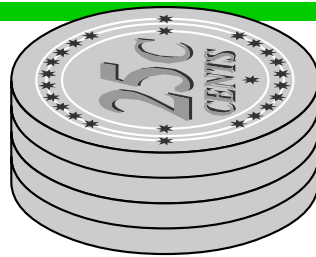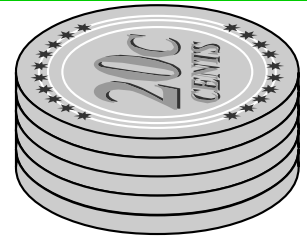| 20, 40, | 50, 60, 70, | 75, 80, | 82, 84, | 85, 86, 87, 88 |

Total: 88 cents or $0.88

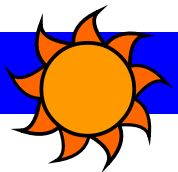| 50, 100, | 125, 150, 175, 200 | 220, 240, 260, 280, 300 |

Total: 300 cents or $3.00

Examples

2. Sort into $1.00 stacks and count the dollars.

Total: $20.00

Note

Dollars and cents, euros and cents and pounds and pence can all be counted using the same methods.

Adding money

Money is added just like adding other numbers, just remember to put the correct money symbol before or after the answer.
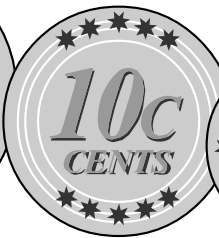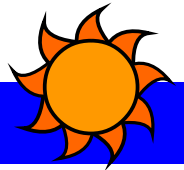
Examples

2c + 1c = 3c

5c + 5c = 10c

50c + 20c + 10c + 5c = 85c

Adding decimal money amounts.

Often money is written as a decimal with the larger unit to the left of the decimal point and the smaller units to the right of the decimal point.

List the amounts making sure the decimal points are exactly underneath each other.

Add the numbers vertically, starting with the right column then moving left column by column.

```
$  3 1 . 2 5
$  2 2 . 3 3
$ 1 3 0 . 5 0
$ 2 2 0 . 1 2
$  1 4 . 0 9
_____
$ 4 1 8 . 2 9
```

Don't forget to put the money symbol and the decimal point in the answer.

Some money symbols

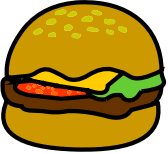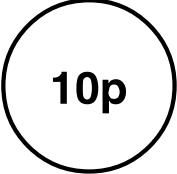|	Symbols
Australia and New Zealand	$ c
US and Canada	$ ¢
UK Euro	£ p € c

Calculating change

Change is the balance of money due after paying for an item with notes or coins of higher value than the cost of the item.

Change should be given using the least number of coins or notes possible.
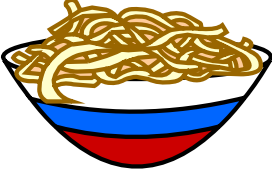
Change is counted out to the customer, from the smallest denomination to the largest denomination, until the amount the customer originally paid is reached.

Examples
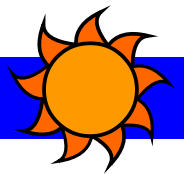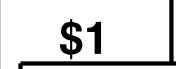
Price	Paid	Change		Count
£1.70	£2.00	10p	20p	£1.70 £1.80, £2.00

Price	Paid	Change		Count
$4.50	$10.00	50c	$5	$4.50 $5.00, $10.00

Price	Paid	Change			Count
$37.00	$50.00	$1	$1	$10 $1	$37.00 $38.00, $39.00, $40.00, $50.00

Unit price

A unit price compares the price of something to a particular unit of measurement, for example, cost per kilogram or cost per litre, so you can see which item is the cheapest.

In Australia, large grocery retailers must display the unit price on shelf labels for food items.

Examples

BAG 4 kg

LOOSE

$4.98
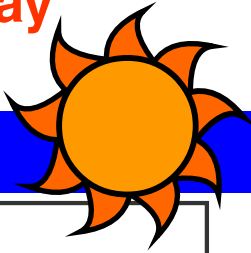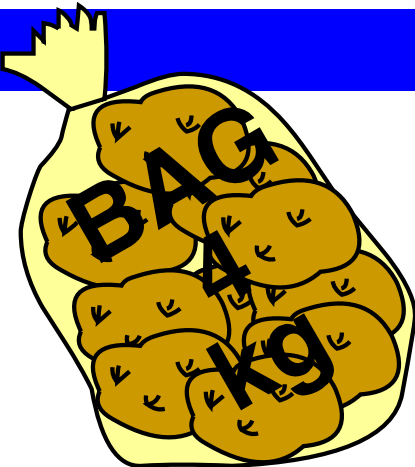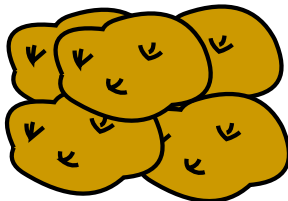
$1.50

Potatoes		
Type	**Unit Price per kg**	**Best Deal**
Bag 4 kg	$1.25	✓
Loose	$1.50	

TUNA CHUNKS
IN BRINE 500g

SANDWICH TUNA
LEMON TANG 95g

$6.20

$2.03

Canned Tuna		
Type	**Unit Price per kg**	**Best Deal**
Chunks 500g	$12.40	✓
Sandwich 95g	$21.37	

MILK 2L

MILK 500ml
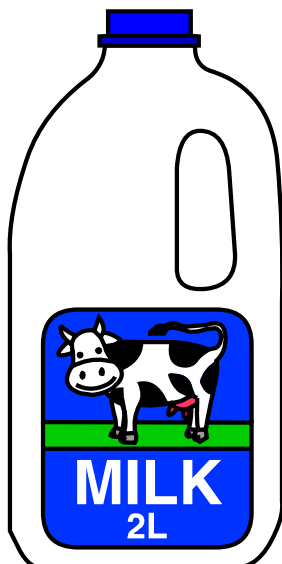
$4.60
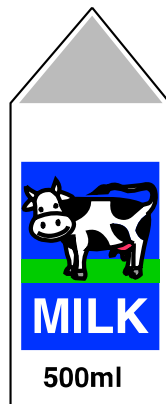
$1.45

Milk		
Type	**Unit Price per litre**	**Best Deal**
Bottle 2L	$2.30	✓
Carton 500 ml	$2.90	

Discounts and markdowns

To calculate the cost of an item when a percentage discount or markdown is offered, write the percent as a fraction, multiply by the price, then subtract that amount from the original price.

$$\text{discount} = \left(\frac{\text{percent}}{100} \times \text{price}\right) \qquad \text{cost} = \text{price} - \text{discount}$$

In a 20% off everything sale, how much would a pair of $20.00 shoes cost?

$$\textbf{Discount} = \frac{20}{100} \times 20 = \frac{400}{100} = \$4.00$$

$$\textbf{Cost} = \$20.00 - \$4.00 = \$16.00$$
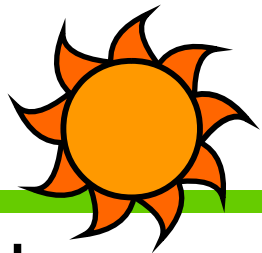
The $20.00 shoes will cost $16.00.

To calculate the percentage discount of an item when a dollar discount is offered, write the discount as a fraction of the original price then multiply by 100.

$$\% \text{ discount} = \left(\frac{\text{discount}}{\text{price}} \times 100\right)$$

Another shoe shop is offering a $5.00 discount on shoes over $15.00. What is the percentage discount on a pair of $20.00 shoes?

$$\% \textbf{ Discount} = \frac{5}{20} \times 100 = \frac{500}{20} = 25\%$$

The $20.00 shoes are discounted by 25%.

Percentages can help find the best deal.

Sales tax

Sales tax is a tax that is added to the price of particular goods and services, usually as a percentage of the purchase price.

$$\text{sales tax} = \left(\frac{\text{percent}}{100} \times \text{price} \right)$$

Sales tax may be called by various names, for example, Goods and Services Tax (GST) or Value Added Tax (VAT).

Examples of different rates of sales tax.

Item and Price	Sales Tax and Total Cost			
Before Sales Tax	10%	15%	20%	25%
$10.00	$1.00 $11.00	$1.50 $11.50	$2.00 $12.00	$2.50 $12.50
$50.00	$5.00 $55.00	$7.50 $57.50	$10.00 $60.00	$17.50 $67.50
$100.00	$10.00 $110.00	$15.00 $115.00	$20.00 $120.00	$25.00 $125.00

Simple interest

Interest is a fee paid for borrowing money or other assets.
The amount borrowed is called the principal.
The interest is expressed as a percentage rate of the principal for a given time interval.

Simple Interest Formula

$$I = P \times R \times T$$

I = Interest
P = Principal
R = Rate
T = Time

NOTE: Convert the percentage to a fraction or a decimal fraction.
For example, if the rate is 5%, then use 5/100 or 0.05 in the formula.

Example - borrowing money.

To buy a new car I need to borrow $20,000.00 for 3 years at a rate of 10% per annum. What will my total repayments be?

$I = P \times R \times T$
$= \$20,000 \times 0.1 \times 3$
$= \$6,000$

Total repayments = P + I
$= \$20,000 + \$6,000$
$= \$26,000$

My total repayments will be $26,000.00.

NOTE
per annum means per year

Example - investing money.

The bank interest rate for term deposits is 5.75% per annum. How much interest would an investment of $20,000.00 for 6 months earn?

$I = P \times R \times T$
$= \$20,000 \times 0.0575 \times 0.5$
$= \$575$

The investment would earn $575.00.

NOTE
6 months = 0.5 of a year

$$$

TERM DEPOSIT

invest now

Profit and loss

PROFIT - when an item is sold for **MORE** than it cost to buy.

LOSS - when an item is sold for **LESS** than it cost to buy.
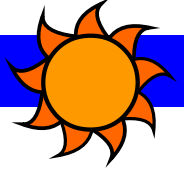
Examples - buying and selling.
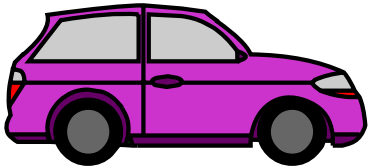
Cost price	Sale price	Profit	Loss
$100,000	$140,000	$40,000	
$15,000	$5,000		$10,000

PROFIT - total earnings are **MORE** than total expenses.

LOSS - total earnings are **LESS** than total expenses.

Examples - business operations.

Total earnings	Total expenses	Profit	Loss
$300,000	$320,000		$20,000
$80,000	$55,000	$25,000	

Calculating profit and loss

Profit is when an item is sold for more than it cost to buy. Profit in a business occurs when the business earns more money than it spends on business expenses.

Calculating profit

On a single item

Profit = sale price - cost price

Percentage profit = $\dfrac{\text{profit}}{\text{cost}}$ x 100

Example: A house was bought for $400,000 and sold 5 years later for $450,000.

$450,000 - $400,000 = $50,000 profit

$\dfrac{\$50,000}{\$400,000}$ x 100 = 12.5% profit

In a business

Profit = earnings - expenses

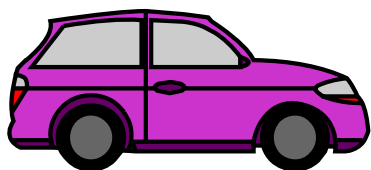Percentage profit = $\dfrac{\text{profit}}{\text{earnings}}$ x 100

Example: A clothing business earned $60,000 in a year. Total expenses were $35,000.

$60,000 - $35,000 = $25,000 profit

$\dfrac{\$25,000}{\$60,000}$ x 100 = 41.6% profit

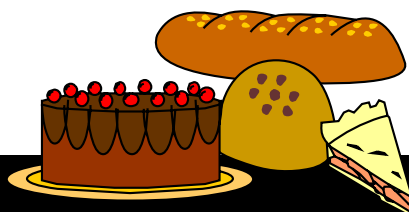## Calculating loss

On a single item

Loss = cost price - sale price

Percentage loss = $\dfrac{\text{loss}}{\text{cost}}$ x 100

Example: A car cost $10,000 and sold for $4,000.

$10,000 - $4,000 = $6,000 loss

$\dfrac{\$6,000}{\$10,000}$ x 100 = 60% loss

In a business

Business Loss = expenses - earnings

Percentage Business Loss = (loss ÷ earnings) x 100

Example: Bakery earnings $30,000; expenses $34,000.

$34,000 - $30,000 = $4,000 or 13.3% loss