# 

## Functional Skills Certificate FUNCTIONAL MATHEMATICS

Level 2 Data Book (Examination)

## Insert

#### Instructions

• This copy of the Data Book is for use in the examination. It should not be given to students in advance.

#### Advice

• This book will not be collected in for marking. Ensure that all working that you wish to have marked is written in the space provided in the question/answer book.

#### Data Sheet for Tenpin bowling



#### The game

A game has ten **frames** for each player.

In each frame, a player starts with ten pins to knock over.

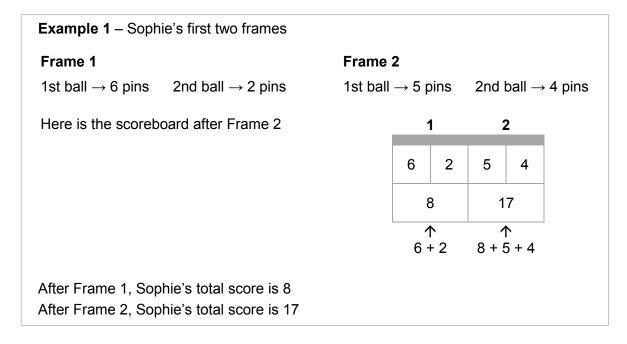
A player bowls a ball one **or** two times in a frame.

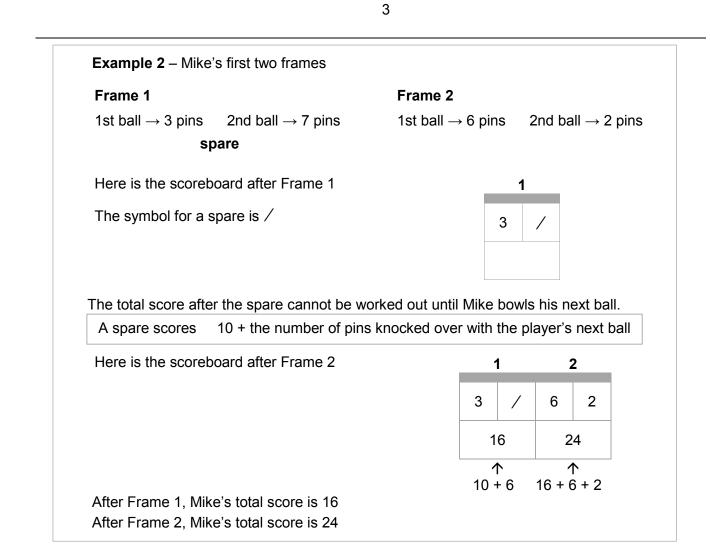
If they knock over all ten pins with their first ball, their frame is complete. This is called a **strike**.

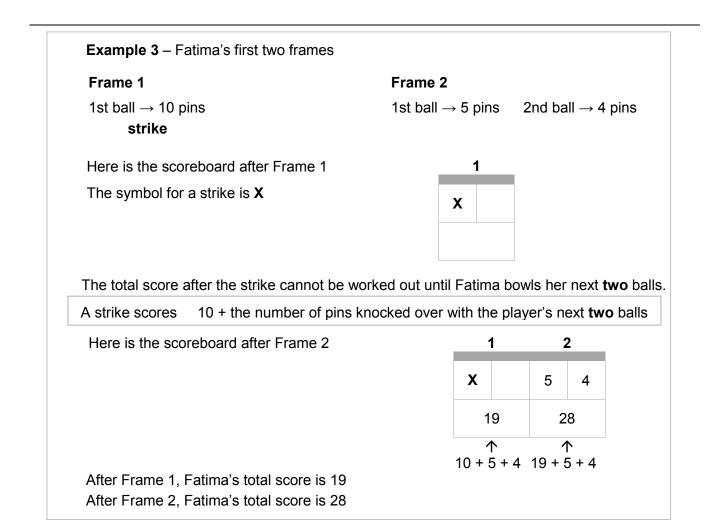
If there are pins still standing, they bowl a second ball at the remaining pins. If they knock them all over, this is called a **spare**.

#### Scoring

These examples show how to work out a player's score.







#### The scoreboard

Here is the scoreboard for a complete game between Sophie, Mike and Fatima.

	1		2		3		4		5		6		7		8		9		10	
Sophie	6	2	5	4	3	/	3	4	X		6	3	4	/	7	1	1	6	3	4
	8		17		30		37		56		65		82		90		97		104	
Mike	3	/	6	2	2	/	5	4	Χ		6	/	4	3	7	2	X		6	3
	16		24		39		48		68		82		89		98		117		126	
Fatima	X		5	4	4	/	6	2	X		2	/	3	3	7	2	4	/	8	1
	19		28		44		52		72		85		91		100		118		127	

Sophie's final score is 104 Mike's final score is 126 Fatima's final score is 127

Fatima wins the game.

### **Data Sheet for Electricity**

Electrical items use different amounts of electricity.

The electricity used depends on

the power of the item

the amount of time the item is switched on.

Power is measured in kilowatts (kW) or watts (W).

1 kW = 1000 W

#### **Using electricity**

The number of units of electricity an item uses, E, is worked out using the formula

E = PT

*P* is the power in kW *T* is the time in hours

#### Example

A 3000 W electric fire is switched on for  $2\frac{1}{2}$  hours.

$$P = 3000 \div 1000$$
  
= 3  
$$T = 2.5$$
  
$$E = 3 \times 2.5$$
  
= 7.5

The fire uses 7.5 units of electricity.

#### Cost of electricity used

Work out Number of units of electricity used × Cost per unit

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