

Functional Skills Certificate FUNCTIONAL MATHEMATICS

Level 1 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.

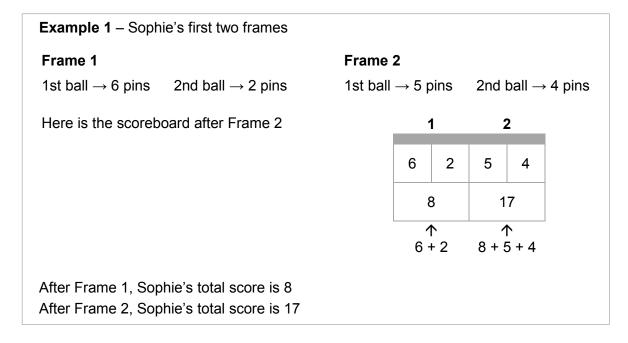
A player bowls a ball one **or** two times in a frame.

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**.

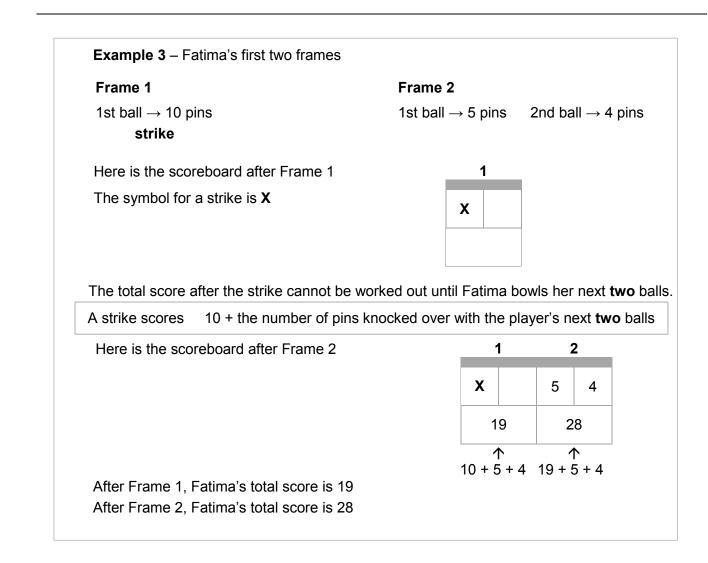
Scoring

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



| Example 2 – Mike | | | | |
|--|---|------------------------|-----------------------------------|---------------------------------------|
| Frame 1 | | Frame 2 | | |
| 1st ball \rightarrow 3 pins | 2nd ball \rightarrow 7 pins | 1st ball \rightarrow | 6 pins | 2nd ball \rightarrow 2 |
| sp | bare | | | |
| Here is the scoreb | oard after Frame 1 | | 1 | |
| The symbol for a s | pare is / | | 3 | / |
| | | | | · |
| | | | | |
| | | | | |
| | | | | |
| The total score afte | r the spare cannot be w | orked out until N | /like bowls | s his next bal |
| The total score afte A spare scores | | | | |
| A spare scores | - | | | |
| A spare scores | 10 + the number of pins | | with the p 1 | layer's next b 2 |
| A spare scores | 10 + the number of pins | | | layer's next b |
| A spare scores | 10 + the number of pins | | with the p 1 | layer's next b 2 |
| A spare scores | 10 + the number of pins | | with the p 1 3 / | layer's next b 2 6 2 |
| A spare scores Here is the scoreb | 10 + the number of pins oard after Frame 2 | | with the p 1 3 / 16 | layer's next b 2 6 2 24 |
| A spare scores Here is the scoreb | 10 + the number of pins | | with the p 1 3 / 16 ↑ | layer's next b 2 6 2 24 ↑ |

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The scoreboard

Here is the scoreboard for a complete game for Mike.

| | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | |
|---|---|---|----|---|---|---|---|---|---|--|---|---|---|---|---|---|---|--|----|---|
| | 3 | / | 6 | 2 | 2 | / | 5 | 4 | X | | 6 | / | 4 | 3 | 7 | 2 | X | | 6 | 3 |
| - | | | 24 | | | | | | | | | | | | | | | | | |

Mike's final score is 126

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 is worked out using

Number of units = Power in kW × Time in hours

Example

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

Power = 3000 ÷ 1000 = 3 kW Time = 2.5 hours

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Number of units = 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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