AQA

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.

4368

QAN 500/8702/2

Data Sheet for Concert

There are rules to work out the maximum number of people allowed in a music venue.

Floor space

Here are the rules for floor space.

Concert area	Allow at least 0.5 m^2 per person
Drinks area	Allow at least 0.3 m^2 per person

Exit doors

The table shows the maximum number of people allowed for different widths of exit door.

Width of exit door	Maximum number of people per exit door
750 mm to 1050 mm	100
More than 1050 mm	200 plus 15 for every 75 mm above 1050 mm

Ignore the **widest** exit door when working out the total number of people allowed.

Example

A band is going to play at a music venue.

Floor space

The venue has

a concert area of 50 m^2
and
a drinks area of 60 m^2

$50 \div 0.5 = 100$
100 people are allowed in the concert area.

$60 \div 0.3 = 200$
200 people are allowed in the drinks area.

There is enough floor space for 300 people.

Exit doors

There are three exit doors, with widths 1200 mm, 1125 mm and 900 mm

Ignore the 1200 mm exit door.

1125 mm exit door   1125 $= 1050 + 75$
                               $200 + 15$ $= 215$
                               The maximum number of people for a 1125 mm exit door is 215

900 mm exit door   The maximum number of people for a 900 mm exit door is 100

The exit doors allow a maximum of 315 people.

The maximum number of people allowed at the venue is 300

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Data Sheet for Calories

Jack exercises at a gym.

He uses these exercise machines.

Treadmill   Bike   Rower   Stair climber

He can exercise at Level 1 or Level 2

He uses up more calories if he exercises at Level 2

The table shows the number of calories per hour Jack uses up on each machine.

	Calories per hour	
	Level 1	**Level 2**
Treadmill	600	900
Bike	660	840
Rower	750	1050
Stair climber	960	1200

Turn over ►

Data Sheet for Customer satisfaction

Companies often ask customers to complete customer satisfaction surveys.

Here is a completed survey for a pet food company.

A. How satisfied are you with the pet food you ordered?

Very dissatisfied   **Very satisfied**

0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	●	○	○

B. Would you recommend our company to others?

Definitely not   **Definitely**

0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	●	○	○	○

The customer gave scores of 8 and 7

Customer ratings

For each question, the company uses the scores to work out a customer rating.

It wants the ratings to be as high as possible.

To work out the rating for question A

Work out the **mean** of all the scores for question A.

Write the mean score as a percentage of 10 (the maximum score).

Example

A mean score of 7.8 gives a customer rating of 78%

To work out the rating for question B

The company labels customers who give a score of

0 to 6	as unhappy
7 or 8	as neutral
9 or 10	as happy.

			Unhappy					Neutral		Happy	
0	1	2	3	4	5	6	7	8	9	10

Customer rating = H − U

H is the percentage of happy customers
U is the percentage of unhappy customers

Example

20 customers completed the survey.

    17 were happy.
    1 was unhappy.

17 as a percentage of 20	= 85%
H = 85%	

1 as a percentage of 20	= 5%
U = 5%	

Customer rating	= 85% − 5%
	= 80%

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