## PASS TIONAL FUNCTS SKILLS

## FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City \& Guilds | Open Awards | NCFE | Highfield Level 2

## Comparing Data Sets

## Materials

- You cannot use a calculator for questions with this symbol.



## Instructions

- Answer all questions.
- Answer questions on separate paper.


## Information and Advice

- The marks for each question are shown in brackets - use this as a guide on how long to spend on each question.
- Read each question carefully before you answer it.
- Check you answers.

Q1 A 10 km running race is held every year.
Below is a table showing the ten fastest times from 2021 and 2020.

|  | Time (minutes) |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 0 2 1}$ | 44 | 42 | 51 | 47 | 41 | 48 | 49 | 40 | 43 | 46 |
| $\mathbf{2 0 2 0}$ | 52 | 48 | 46 | 43 | 41 | 46 | 39 | 46 | 42 | 45 |

In which year was the average time lower?

Q2 Three students sit three maths exams. Their scores are shown in the table below.

|  | Exam Score (\%) |  |  |
| :---: | :---: | :---: | :---: |
| Student | Exam 1 | Exam 2 | Exam 3 |
| Simon | 78 | 82 | 73 |
| Lydia | 84 | 86 | 71 |
| Daniel | 89 | 70 | 76 |

2(a) Who had the lowest average score across the three exams?

2(b) Which exam had the highest average score among the three students?

2(c) Which student has the most consistent scores?

Q3 Luke is comparing the price of four different car insurance companies, offering fully comprehensive insurance and third party, fire and theft insurance.

The information he finds is shown in the table below.

|  | Cheap <br>  <br>  <br> Cover | Easy <br> Insure | No. 1 <br> Insurance | Your Car |
| :---: | :---: | :---: | :---: | :---: |
| Fully <br> Comprehensive | $£ 290$ | $£ 360$ | $£ 310$ | $£ 325$ |
| Third Party, Fire <br> and Theft | $£ 175$ | $£ 160$ | $£ 190$ | $£ 200$ |

3(a) Calculate the average cost of purchasing fully comprehensive insurance.

3(b) Which insurance type has the more consistent prices?

Q4 The table shows information on the amount of mobile phones sold by two different mobile phone companies in one week.

|  | Number of Phones Sold |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Mon | Tue | Wed | Thu | Fri | Sat | Sun |  |
| Phones Direct | 45 | 49 | 31 | 38 | 58 | 67 | 61 |  |
| Value for Calls | 49 | 47 | 42 | 45 | 50 | 52 | 51 |  |

4(a) Which company had the highest average sales over the week?

4(b) Which company has the most consistent sales over the week?

Q5 Below shows a table showing customer ratings at three different hotels.

|  | Customer Rating (Out of 10) |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hotel 1 | 7 | 8 | 6 | 5 | 8 | 3 | 9 | 6 | 8 | 7 |  |
| Hotel 2 | 6 | 7 | 6 | 8 | 7 | 8 | 6 | 6 | 8 | 7 |  |
| Hotel 3 | 5 | 6 | 10 | 2 | 4 | 7 | 8 | 5 | 6 | 6 |  |

5(a) Which hotel had the highest average customer ratings?

5(b) Which hotel has the most consistent customer ratings?

Q6 Three cyclists take part in four races. Their times are shown in the table below.

|  | Time (seconds) |  |  |
| :---: | :---: | :---: | :---: |
| Cyclist | Time Trial 1 | Time Trial 2 | Time Trial 3 |
| Tom | 91 | 85 | 84 |
| Stewart | 101 | 93 | 82 |
| Jack | 87 | 83 | 84 |

6(a) Which cyclist had the slowest average time?

6(b) Which cyclist had the least consistent time?

