## PASS TIONAL FUNCTS

## FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City \& Guilds | Open Awards | NCFE | Highfield Entry Level 3

## Temperature

## 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.



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Q3 Zoe comes across some temperatures in her day to day life.

3(a) When cooking dinner, Zoe's chicken needs to be cooked at $160^{\circ} \mathrm{C}$, while her chips need to be cooked at $220^{\circ} \mathrm{C}$. What is the cooking temperature difference?

3(b) Zoe's refrigerator has a working temperature of between $2^{\circ} \mathrm{C}$ and $8^{\circ} \mathrm{C}$. What is the difference between the highest and lowest temperatures the fridge can work at?

3(c) The following day, Zoe is studying for her physics exam and notices that it says the temperature of the surface of the sun varies from $5000^{\circ} \mathrm{C}$ to $10000^{\circ} \mathrm{C}$. What is the difference between the highest and lowest temperatures of the surface of the sun?

3(d) Zoe puts her heating on that night, and sees her thermostat runs from $13^{\circ} \mathrm{C}$ to $28^{\circ} \mathrm{C}$. What is the difference between the highest and lowest temperatures of the thermostat?

3(e) The heating raises the temperature of Zoe's house by $8^{\circ} \mathrm{C}$, from a start of $15^{\circ} \mathrm{C}$. What is the new temperature of Zoe's house?

| Q4 | Select the largest temperatures out of these groups: |  |
| :---: | :---: | :---: |
| 4(a) | $7^{\circ} \mathrm{C}, 8^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(b) | $38^{\circ} \mathrm{C}, 24^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(c) | $21^{\circ} \mathrm{C}, 150^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(d) | $21^{\circ} \mathrm{C}, 41^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(e) | $130^{\circ} \mathrm{C}, 190^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(f) | $81^{\circ} \mathrm{C}, 87^{\circ} \mathrm{C}, 78^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(g) | $330^{\circ} \mathrm{C}, 920^{\circ} \mathrm{C}, 110^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(h) | $27^{\circ} \mathrm{C}, 29^{\circ} \mathrm{C}, 28^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(i) | $49^{\circ} \mathrm{C}, 57^{\circ} \mathrm{C}, 54^{\circ} \mathrm{C}, 61^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
| 4(j) | $1124^{\circ} \mathrm{C}, 1138^{\circ} \mathrm{C}, 1129^{\circ} \mathrm{C}, 1119^{\circ} \mathrm{C}$ |  |
|  |  | [1 mark] |
|  |  |  |

Q5 Allie, Benjamin and Catarina are all taking their temperature as part of an experiment.
Allie's temperature is $37.1^{\circ} \mathrm{C}$
Benjamin's temperature is $36.8^{\circ} \mathrm{C}$
Catarina's temperature is $37.3^{\circ} \mathrm{C}$

5(a) Put them in order of temperature.

5(b) Healthy body temperature is $37.0^{\circ} \mathrm{C}$. Which of them are under healthy body temperature and which of them are over healthy body temperature?

5(c) A dangerous body temperature is less than $36.5^{\circ} \mathrm{C}$ or greater than $38.5^{\circ} \mathrm{C}$. Do any of them have a dangerous body temperature?

Q6 The calendar below lists the highest temperatures for each day July.

| Mon | Tue | Wed | Thu | Fri | Sat | Sun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
|  | $29^{\circ} \mathrm{C}$ | $26^{\circ} \mathrm{C}$ | $27^{\circ} \mathrm{C}$ | $24^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ | $21^{\circ} \mathrm{C}$ |
| $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | 11 | $\mathbf{1 2}$ | 13 |
| $19^{\circ} \mathrm{C}$ | $23^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ | $24^{\circ} \mathrm{C}$ | $25^{\circ} \mathrm{C}$ | $26^{\circ} \mathrm{C}$ |
| $\mathbf{1 4}$ | $\mathbf{1 5}$ | $\mathbf{1 6}$ | $\mathbf{1 7}$ | 18 | 19 | 20 |
| $26^{\circ} \mathrm{C}$ | $28^{\circ} \mathrm{C}$ | $31^{\circ} \mathrm{C}$ | $32^{\circ} \mathrm{C}$ | $30^{\circ} \mathrm{C}$ | $26^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ |
| $\mathbf{2 1}$ | $\mathbf{2 2}$ | $\mathbf{2 3}$ | $\mathbf{2 4}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{2 7}$ |
| $19^{\circ} \mathrm{C}$ | $21^{\circ} \mathrm{C}$ | $24^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ | $23^{\circ} \mathrm{C}$ | $22^{\circ} \mathrm{C}$ | $19^{\circ} \mathrm{C}$ |
| $\mathbf{2 8}$ | 29 | 30 | 31 | 1 | 2 | 3 |
| $18^{\circ} \mathrm{C}$ | $17^{\circ} \mathrm{C}$ | $17^{\circ} \mathrm{C}$ | $15^{\circ} \mathrm{C}$ |  |  |  |

6(a) What temperature was it on Sunday $6^{\text {th }}$ July?

6(b) On how many Thursdays was it $22^{\circ} \mathrm{C}$ ?

6(c) Which day was warmer - Wednesday $16^{\text {th }}$ July or Monday $28^{\text {th }}$ July?

