## PASS TIONAL FUNCTI

## FUNCTIONAL SKILLS MATHEMATICS

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

## Weight

## 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 | Convert these weights in grams (g) into kilograms (kg). |  |
| :---: | :---: | :---: |
| 1(a) | 2000 g |  |
|  |  | [1 mark] |
| 1(b) | 1000 g |  |
|  |  | [1 mark] |
| 1(c) | 300 g |  |
|  |  | [1 mark] |
| 1(d) | 800 g |  |
|  |  | [1 mark] |
| 1(e) | 390 g |  |
|  |  | [1 mark] |
| 1(f) | 2620 g |  |
|  |  | [1 mark] |
| 1(g) | 4 g |  |
|  |  | [1 mark] |
| 1(h) | 38 g |  |
|  |  | [1 mark] |
| 1(i) | 21119 g |  |
|  |  | [1 mark] |
| 1(j) | 616 g |  |
|  |  | [1 mark] |
|  |  |  |



Q3 Heike is being weighed for her upcoming boxing tournament. The categories are as follows:
Featherweight - under 50 kg
Lightweight - 50 kg to 70 kg
Middleweight - 71 kg to 110 kg
Heavyweight - over 110 kg

3(a) Heike is hoping to be in the middleweight category. Write down a weight this is in this category.

3(b) Heike weighs 72 kg . Is she in the middleweight category? Explain your answer.

3(c) In boxing, people only fight if they are in the same weight category. Which of these people could Heike fight in the upcoming tournament?
Sarah - 68 kg
Tammy - 112 kg
Helena - 84 kg
Samira - 49 kg
Emily - 78 kg

Q4 A supermarket sells flour in 4 different sized bags.
A - 1000 g
B -500 g
C-750 g
D - 2000 g

4(a) Clair needs 600 g of flour for a cake recipe. Which bags can she buy?

4(b) The supermarket launches a discount on bags over 800 g . Which bags are discounted?

4(c) Colin is making double the amount of cake Clair makes, so needs 1200 g of flour. Which bags can he buy?

Q5 Jane is looking to buy a new vehicle. She has a number of options.
Tayata Riva - 2700 kg Renauvae Scono - 2100 kg
Volv XS - 1200 kg
Volv XL-3800 kg
Fiar 501 - 3100 kg

5(a) There is a bridge near Jane's house that supports a maximum weight of 3000 kg . She wishes to buy a vehicle that will go over this bridge. Which vehicles are these?

5(b) Jane wishes to buy a vehicle that weighs more than 2000 kg after being told that heavier vehicles are much safer in the event of an accident. Which vehicles are these?

5(c) Jane is told that vehicles weighing more than 2500 kg tend to be more polluting so have higher road tax, so she wants to buy a vehicle that weighs less than 2500 kg . Which vehicles are these?

5(d) Jane says: "Only one vehicle meets all of my requirements." Is she correct? If so, which vehicle?

Q6 Jonn is in a sweet shop. He can buy sweets in three different weights of cup:
A - 4 oz
B-3 oz
C-6 oz

6(a) Put these in order from lightest to heaviest

6(b) A discount is applied on weights under 5 oz . To which cups is the discount applied?

Q7 Add these weights together:

7(a) $\quad 300 \mathrm{~g}+200 \mathrm{~g}$
[1 mark]

7(b) $\quad 250 \mathrm{~g}+550 \mathrm{~g}$

7(c) $2 \mathrm{~kg}+5 \mathrm{~kg}$
[1 mark]

7(d) $\quad 1024 \mathrm{~g}+2998 \mathrm{~g}$
[1 mark]

7(e) $\quad 2.1 \mathrm{~kg}+9.4 \mathrm{~kg}$
[1 mark]

7(f) $\quad 0.988 \mathrm{~kg}+0.221 \mathrm{~kg}$
[1 mark]

7(g) $\quad 160 \mathrm{~g}+24 \mathrm{~g}$
[1 mark]

7(h) $\quad 0.028 \mathrm{~kg}+0.009 \mathrm{~kg}$
[1 mark]

7(i) $\quad 24351 \mathrm{~g}+28904 \mathrm{~g}$
[1 mark]

7(j) $\quad 44.216 \mathrm{~kg}+25.414 \mathrm{~kg}$

Q8 Carlos buys these things from the supermarket:
400 g bread
150 g butter
568 g milk
175 g cheese
100 g ham
65 g chocolate bar

8(a) What is the combined weight of the bread, butter and cheese?

8(b) What is the combined weight of the butter, ham and chocolate bar?

8(c) What is the total weight of Carlos' shopping?

8(d) Carlos plans to eat the chocolate bar on his way home. He packs everything else into a carrier bag. The carrier bag can hold 1500 g without breaking. Will it break?

Q9 Sergio is making an ice sculpture and keeps track of the amount of ice he removes from the block every day.
Day $1-500 \mathrm{~g}$
Day $2-220 \mathrm{~g}$
Day $3-350 \mathrm{~g}$
Day 4-90 g

9(a) The block of ice weighed 2000 g at the start. How much did it weigh after day 1 ?

9(b) How much did it weigh after days 2,3 and 4 ?

9(c) After 5 days, the sculpture is finished. It weighs 500 g . How much ice was removed on day 5 ?

Q10 Tomas has four types of plant pot with different weights:
A - 500 g - Tomas has 3 of them
B -1600 g - Tomas has 8 of them
C-100 g - Tomas has 25 of them
D - 5000 g - Tomas has 2 of them

10(a) What is the total weight of Tomas' type A plant pots?

## [1 mark]

10(b) What is the total weight of Tomas' type B and type D plant pots?

10(c) What is the total weight of all of Tomas' plant pots?
[2 marks]

10(d) What is the difference between the weight of Tomas' type B plant pots and type C plant pots?

10(e) Which is heavier - Tomas' type A and type D plant pots combined or Tomas' type B and type C plant pots combined?

10(f) Tom has a shelf in his shed that can support 3500 g of weight. Can he put 2 type $B$ plant pots and 4 type C plant pots on this shelf?

Q11 5.04 kg of lasagne is to be split between a set number of people at a school dinner. However, until the register is taken in the morning, the catering staff do not know how many people it will be split between.

11(a) If it is split between 16 people, how much will each person get?

11(b) If it is split between 18 people, how much will each person get?

11(c) If it is split between 20 people, how much will each person get?

11(d) If it is split between 21 people, how much will each person get?

11(e) If it is split between 24 people, how much will each person get?

## Q12 Add these weights together:

12(a) $400 \mathrm{~g}+2 \mathrm{~kg}$

12(b) $3 \mathrm{~kg}+600 \mathrm{~g}$

12(c) $1.1 \mathrm{~kg}+450 \mathrm{~g}$

12(d) $\quad 1550 \mathrm{~g}+0.85 \mathrm{~kg}$

12(e) $\quad 641 \mathrm{~g}+0.589 \mathrm{~kg}$

12(f) $\quad 24 \mathrm{~g}+0.11 \mathrm{~kg}$

12(g) $\quad 11 \mathrm{~g}+0.025 \mathrm{~kg}$

12(h) $\quad 0.844 \mathrm{~kg}+1623 \mathrm{~g}$

12(i) $\quad 23.454 \mathrm{~kg}+11225 \mathrm{~g}$

12(j) $\quad 151 \mathrm{~g}+0.96 \mathrm{~kg}$

Q13 Clementine wants to buy 1.5 kg of potatoes from the supermarket. They are sold in bags of the following weights:
A-1 kg
B-500 g
C -12.5 kg
D -250 g
E-2 kg

13(a) State why Clementine should not buy bag $C$.

13(b) List all of the ways for Clementine to buy exactly 1.5 kg .

13(c) Clementine buys bag E. How much extra weight of potatoes does she have? Give your answer in grams.

Q14 Elsie works for a logistics company. Today she is transporting packages that people have ordered online. She has a large number of five different types of package:
A -50 kg
B-500 g
C-50 g
D -1 kg
E-4000 g
A small truck can carry 2000 kg , a medium truck can carry 5000 kg and a large truck can carry 10000 kg .

14(a) Elsie intends to send 25 of package $A$ on a small truck. Will this be too heavy?

14(b) Elsie instead decides to put 34 of package A on the small truck and fills the rest of the space with package Es. How many package Es will be on the truck?

14(c) How many times bigger is package $A$ than package $B$ ?

14(d) Elsie says "I can fit 150000 package Cs on a large truck." Is she correct?

