

# TQUK Functional Skills Qualification in Maths at Level 2

## Examination Paper (Sample Assessment Paper 2)

Please complete the details below using black or blue ink. Use **BLOCK CAPITALS**.

Learner Name: \_\_\_\_\_

Learner Number: \_\_\_\_\_

Date: \_\_\_\_\_

Centre Name: \_\_\_\_\_

### Instructions:

- Read each question **carefully**
- Answer **all** questions
- Write your answers **clearly** in the spaces provided
- **Check** your answers.

### Information:

- This examination has **two** sections. These are clearly labelled
- You are **not allowed** to use a calculator for Section A
- You **are allowed** to use a calculator for Section B
- The **maximum** mark for this examination is 60
- The marks available for each question are shown in **bold** beneath each question.

### Items:

- You **will need** a pen with black or blue ink, a pencil, a ruler and an eraser (for diagrams, graphs and charts only)
- You **will need** a basic calculator for Section B only
- You **will not** need any other stationery or equipment.

### Time allowed:

**30 minutes** for Section A (Non-calculator)

**90 minutes** for Section B (Calculator)

**Do not open this examination paper until you are told to do so.**

### For examiner use only

	<b>Marks available</b>	<b>Marks awarded</b>	<b>Second marks</b>
Section A	15		
Section B	45		
Total marks	60		

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## Section A: Non-calculator

There are **15 marks** available in this section.  
You must **not** use a calculator in this section.  
You will have **30 minutes** to complete this section.



1. Work out  $0.872 + 0.15$

Answer	

[1]

2. Work out  $2.205 \times 4$

Answer	

[1]

Questions continue on the following page

3. A cyclist cycles 3 miles in 10 minutes.

What is the cyclist's average speed in miles per hour (mph)?

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<b>Answer</b>
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<b>mph</b>
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**[2]**

4. Write 0.86:

(a) as a fraction

(b) as a percentage.

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<b>Answer</b>
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<b>(a) Fraction:</b>
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<b>(b) Percentage:</b>
------------------------

**[2]**

5. Jordan goes out for lunch.

The bill comes to £20

Jordan wants to leave extra money as a tip.

The extra money is 18% more than the bill.

What is the total amount that Jordan will pay?

<b>Answer</b>	<b>£</b>

[2]

Questions continue on the following page

**6.** Work out the median of these numbers:

5000      3000      2500      4250      5500      6600

<b>Answer</b>	

**[2]**

7. A map has a scale of 1 : 50 000

A school and a supermarket are 2.5 centimetres (cm) apart on the map.

How far apart are the school and supermarket in real life?

Give the units in your answer.

<div style="text-align: right; padding-right: 10px;"><b>Answer</b></div>	
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[2]

Questions continue on the following page

8. A company gives its staff 6 pizzas to share.

Each pizza is cut into 8 slices.

On the first day, the staff eat 3 whole pizzas and 5 additional slices.

On the next day, they eat another 10 slices of pizza.

How much pizza is left after the second day?

Give your answer as a mixed number.

SAMPLE	
<b>Answer</b>	

**[3]**



**End of Section A.**

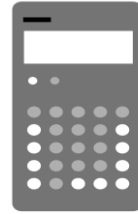
**Section B begins on Page 8.**

## Section B: Calculator

There are **45 marks** available in this section.

You **can** use a basic calculator in this section.

You will have **90 minutes** to complete this section.



1. Put these numbers in order starting with the lowest:

–865    –811    –820    –814

Show any working here:

Answer				
	Lowest			Highest

[1]

2. There are 2.54 centimetres (cm) in 1 inch.

How many inches are there in 127 cm?

Answer

[1]

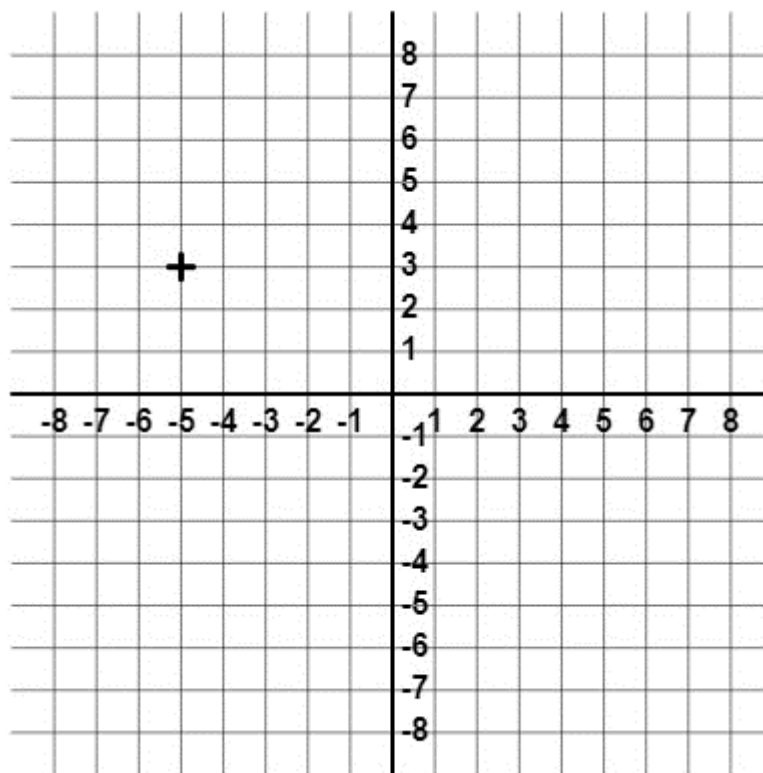
Questions continue on the following page

3. Calculate  $12^2 - 3 \times 2.1$

<b>Answer</b>	

[1]

4. Write down the coordinates of the point labelled on the grid.

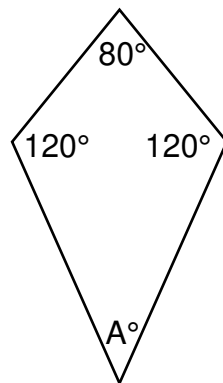


**Answer**

(     ,     )

[1]

5. Work out the value of angle A.



Not drawn to scale

<b>Answer</b>	°

[2]

Questions continue on the following page

6. A garden has a circular flowerbed in the centre.
- The diameter of the flowerbed is 1.38 metres (m).
- Children make fairy lights to go all around the edge of the flowerbed.
- The total length of the fairy lights is 4.5 metres (m).
- Are the fairy lights long enough to decorate all around the edge of the flowerbed?

**Show how you decide.**

*Use  $\pi = 3.14$*

<b>Answer</b>	

**[3]**

7. Charlie recently used 14 litres of paint to decorate the living room walls.

The total area painted was 91 m<sup>2</sup>

Charlie now wants to paint the bedroom walls.

The total area to be painted is 78 m<sup>2</sup>

Charlie has 11 litres of paint.

Does Charlie have enough paint?

**Show how you decide.**

SAMPLE	
<b>Answer</b>	

**[3]**

**Questions continue on the following page**

8. Morgan is planning a holiday and finds this information:

Greenland                      Average temperature 14° Fahrenheit (°F)

Iceland                          Average temperature –11° Celsius (°C)

Morgan wants to go to the warmer country.

Which country should Morgan go to?

**Show how you decide.**

Use:  $C = \frac{5(F - 32)}{9}$

Where: C = temperature in degrees Celsius  
F = temperature in degree Fahrenheit

<p style="text-align: center; font-size: 2em; opacity: 0.3; transform: rotate(-30deg);">SAMPLE</p>	
<b>Answer</b>	

**[3]**



9. This year, Jo's gym membership price has increased by 5%.

The new monthly price is £33.60

How much did Jo pay for an entire year's membership last year?

<b>Answer</b>	<b>£</b>

[3]

Questions continue on the following page

10. An athletics club awards points each year to its members.

In 2021, the club awarded its members a mean of 90.3 points in the year.

The grouped frequency table shows the points the club awarded its members in 2022:

Number of points awarded	Frequency
$0 \leq \text{points} < 40$	7
$40 \leq \text{points} < 80$	34
$80 \leq \text{points} < 120$	100
$120 \leq \text{points} < 160$	9
<b>Total</b>	<b>150</b>

The club president says:

*'The mean number of points per member in 2022 has increased since 2021'*

Is the president correct?

**Show how you decide.**

**Answer**

**[4]**

- 11.** Hayden is organising activities for 80 students going on a school trip.

The ratio of the number of students who can participate in swimming, rock climbing and go karting is 5 : 3 : 2

Complete the activity list for Hayden.

Activity	Number of Students
Swimming	
Rock climbing	
Go karting	
Total	

**Show any workings here:**

**[4]**

**Questions continue on the following page**

**12.** Harper is a manager of a company.

Last year the company made a profit of nine hundred and seventy-five thousand and fifty pounds.

This year Harper wants to increase the profit by 3.5%.

Harper thinks the new profit will be more than £1 010 000

Is Harper correct?

**Show how you decide.**

SAMPLE

<b>Answer</b>	
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**[4]**

13. A delivery driver keeps a record of the number of miles per gallon (mpg) their car achieves each day.

These are the results for week 2:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30	38	22	37	40	32	39

This is a summary of the results for week 1:

Week 1	
Mean mpg	32
Range	16

The delivery driver claims:

- a) 'on average, the car achieved more miles per gallon in week 2 than in week 1'  
 b) 'the miles per gallon achieved in week 2 were more consistent than in week 1.'

Are **each** of the driver's claims correct?

Give reasons for your answers.

**Show your working.**

Show any workings here:

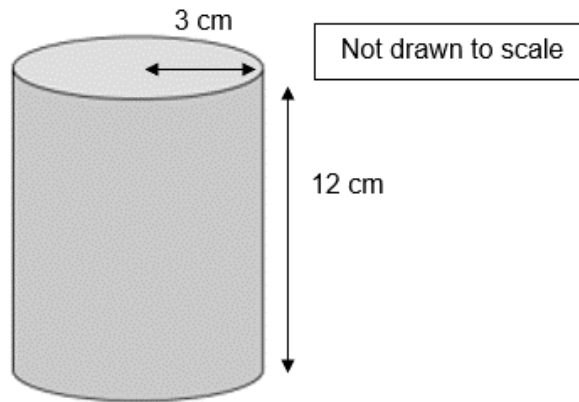
Comment regarding claim a)

Comment regarding claim b)

[4]

Questions continue on the following page

- 14.** A nursery asks Cameron to make 50 cylinder-shaped toy blocks using this design:



When the blocks are made, Cameron needs to paint them using glow-in-the-dark paint.

Each tin has enough paint to cover 1150 square centimetres (cm<sup>2</sup>).

How many tins of paint will Cameron need to buy to paint all 50 toy blocks?

Use  $\pi = 3.14$

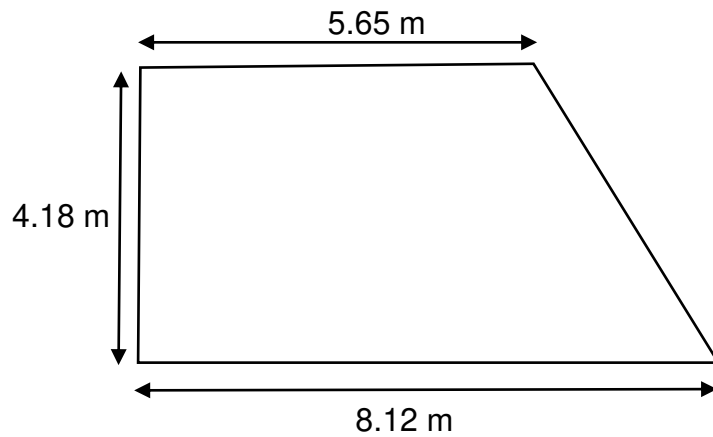
SAMPLE

**Answer**

**tins**

**[5]**

15. A family wants to cover this garden with grass.



Not drawn to scale

They will buy grass as turf in square metres ( $\text{m}^2$ ).

The family finds these prices online:

Cost per square metre ( $\text{m}^2$ ) Must buy a whole number of square metres					
£5.00	£3.80	£4.50	£5.00	£4.25	£6.00

The family wants to pay the same amount as the modal cost.

How much will it cost to cover the entire garden in turf?

**Show your working.**

<p style="font-size: 100px; opacity: 0.1; transform: rotate(-30deg); position: absolute; top: 50%; left: 50%;">SAMPLE</p>	<p><b>Answer</b></p>	<p>£</p>
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[6]

**This is the end of the assessment.**