# **TQUK Functional Skills Qualification in Maths at Level 2**

**Examination Past Paper 1** 

Please complete the CAPITALS.	ne details below using black or blue ink. Use BLOCK
Learner Name:	
Learner Number:	
Date:	
Centre Name:	

Training Qualifications UK

#### 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 basic 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 need a protractor and a compass
- 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.

xaminer use only					
	Marks available	Marks awarded	Second marks		
Section A	15				
Section B	45				
Total marks	60				
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**3.** Charlie buys a length of wood equal to 3.6 metres (m).

Charlie cuts off a length of 1.125 metres (m).

Work out how much wood Charlie has left.

Give your answer in metres (m).



5. Harper wants to go on holiday.

Harper finds two offers for the same holiday on different websites:



Which offer gives the bigger discount?

## Show how you decide.

Answer

[2]

**6.** 60 people attend a dancing school.

The classes each person attends are shown below:

	Morning	Afternoon
Ballet	28	15
Тар	12	5

One person is chosen at random.

What is the probability that the person chosen attends the morning ballet class?

Give your answer as a fraction in its simplest form.

|--|--|--|

Answer

[2]

7. Work out the value of A shown in this triangle:



8. Drew wants to put a fence around a garden.



Not drawn to scale

Drew knows the fence panels are sold in feet (ft).

How many feet (ft) of fence panelling does Drew need in total?

Use this conversion graph:



# End of Section A.

6

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]

**1.** The diagram shows a square-based pyramid:



Draw the plan view of the square-based pyramid on this grid:

	•	•	•	·	·	•	·	·	·	·	·	•	•	•	·
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[1]

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2. Write three billion in numbers.

Allswer
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**3.** Lee wants to buy a new computer for £1390

If Lee uses a payment plan, the price of the computer increases by 12.5%

How much money will Lee pay in total for the computer using the payment plan?

Answer	£	
		[2]

### 4. Put these fractions in order starting with the lowest:

$$\frac{6}{7}$$
  $\frac{6}{5}$   $\frac{8}{7}$   $\frac{36}{35}$ 

Show any w	vorking:		
Answer			
	Lowest	 	Highest

[2]

5. 140 people were asked if they could speak a second language.

126 people said yes.

What percentage of the total number of people said yes?

Answer	%
	[2]

6. Harrison needs their new house to be painted within 8 days.

3 painters will take 5 days to paint the house.

Unfortunately, one painter is unavailable.

Will 2 painters be able to paint the house in time?

### Show how you decide.

7.	Some friends are planning a hike.	

The total distance of the hike is 105 kilometres (km).

The hiking route is divided into Sections A, B and C in the ratio 3:7:11

One friend thinks that Section B is 40 kilometres (km) longer than Section A.

Answer

Is this correct?

### Show how you decide.

Answer

[3]

[2]

**8.** Jude drives 136 kilometres (km) to visit a friend.

The drive takes 2.25 hours.

Jude thinks the average speed was less than 60.5 kilometres per hour (kph).

Is Jude correct?

Show how you decide.

Answer

[3]

9. Sam needs 2.5 pounds (lbs) of flour to do some baking.

The shop sells flour in kilogram (kg) bags.

Sam buys a 2-kilogram bag of flour.

How much flour will Sam have left over?

Use 1 lb = 0.454 kg

Answer

[3]

**10.** Kai gets paid a net amount of £1418.50 each month.

29% is deducted from Kai's gross pay before they are paid the net amount.

Kai wants to check the gross amount before the 29% was deducted.

Kai rounds the net amount to the nearest £10 and uses the rounded value to check the gross amount.

What answer should Kai get?

### Show your working.

Answer	£
	[3]

			$\overline{}$
11.	Maddison uses this water bottle whilst at t	he gym.	、エ
	The bottle is in the shape of a cylinder with dimensions:	n internal	
	<ul> <li>Radius = 4 cm</li> <li>Height = 22 cm</li> </ul>	22 0	em
	Maddison's personal trainer recommends water bottle that holds 8% more water.	a new	
	What size water bottle should Maddison b	uy?	4 cm
	Use <i>π</i> = 3.14		Not drawn to scale
		Answer	cm <sup>3</sup>
			[4]

**12.** Two years ago, Nicky paid £8000 into a new savings account.

The savings account paid 4% compound interest per year.

Nicky sees this car for sale:



All the money in the savings account will be used as a deposit towards the car.

The balance will be paid in 20 equal monthly instalments.

How much will each monthly instalment be?

	Answer £	
	[4]	

**13.** Riley grows apples and oranges.

The weights of the apples collected on Monday are shown below:

173 grams 15	51 grams 182 gra	ms 248 grams	214 grams
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The weights of the oranges collected on Monday are summarised below:

Oranges weights			
Mean weight	188 grams		
Range	112		

Riley claims:

- a) 'On average the weight of the apples is greater than the weight of the oranges.'
- b) 'The weights of the apples are more consistent.'

Are each of Riley's claims correct?

Give reasons for your answers.

### Show your working.

Show working here:
Reason - claim a)
Reason - claim b)

[4]

**14.** Taylor is going to Finland for six months and wants to know the average monthly temperature.

Taylor finds this information:

Month	November	December	January	February	March	April
Average temperature °F	32	29	28	30	35	46

Taylor uses this formula to convert the median temperature from degrees Fahrenheit (°F) to degrees Celsius (°C):

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

Where C = temperature in Celsius (°C) F = temperature in Fahrenheit (°F)

Taylor thinks the median monthly temperature is colder than -1°C.

Is Taylor correct?

Show how you decide.

Answer

Questions continue on the following page

[5]

**15.** Alex has a table in the shape of a rectangle with a semicircle on each end.



Alex wants to cover the surface of the table in fabric and finds these prices online:

Fabric						
Price per square metre						
£3.75	£2.99	£3.75	£4.00	£5.25	£4.99	£5.75

Alex uses the modal price to estimate how much it will cost to cover the surface in fabric.

How much does Alex estimate the fabric will cost?

Give your answer to the nearest whole pound (£).

Use  $\pi = 3.14$ 

Answer	£

This is the end of the assessment.