TQUK Functional Skills Qualification in Maths at Level 2



Examination Past Paper 6

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

r examiner use only						
	Marks available	Marks awarded	Second marks			
Section A	15					
Section B	45					
Total marks	60					

This page is intentionally left blank.



3. Round 7.5385 to one decimal place.

Use your rounded value to **estimate** the answer to $30\ 000 \times 7.5385$

Show your working.

7.5385≈7.5		
7.5 × 30 000 = 225 000		
7.5 × 3.0 × 22.3		
	Answer 225 000	
		[2]
4. Work out 7 ² (40 ÷ 4)		
B: $(40 \div 4) = 10$ $7^2 \times 10$		
I: 7 ⁴ = 49		
$M: 49 \times 10 = 490$		
A : X		
S: X		
	Answer 490	
		[2]

5.

Ashley needs to cut a piece of wood as shown: 50° Å٥ Not drawn to scale Ashley thinks angle A will be 140° Is Ashley correct? Show how you decide. Angles on straight line sum to 180° 180-50=130° = A Answer No , 130° [2] Questions continue on the following page

6. There are 300 sweets in a box.

There are:

- 52 chocolate sweets
- 150 strawberry sweets
- 98 lemon sweets.

One sweet is chosen at random.

What is the probability that the sweet chosen is a chocolate sweet?

Give your answer as a fraction in its simplest form.



8. Enkai needs 2.5 litres (I) of water.

The jug Enkai uses measures in pints (pt).

Enkai measures out 4.5 pints of water.

Does Enkai have enough water?

Show how you decide.

Use 1 litre = 1.759 pints



End of Section A.

Section B begins on Page 7.



7

3. Nilam wants to buy a new laptop.

Nilam finds these offers for the same laptop on different websites:



Which website gives the bigger discount?

Show how you decide.



Use this formula to convert 15 degrees Celsius (°C) into degrees Fahrenheit 4. (°F):

$$F=\frac{9C}{5}+32$$

$$C = 15^{\circ}C$$

$$F = \frac{9 \times 15}{5} + 32$$

$$= 59^{\circ}F$$
[2]

5. Charu normally sells cakes for £4.00 each.
Charu raises the selling price of each cake to £12.00
Calculate the percentage change.

$$\frac{7}{6} \text{ change} = \frac{10CrCase}{arginal price} \times 10^{\circ}$$

$$= \frac{12 - 4}{4} \times 10^{\circ}$$

$$= 200\%$$

[2]

200

6. Sasa wants to put a picnic table in a garden.

The table needs to be:

- in the shape of a square with side length 0.5 metres (m)
- 1 metre away from the fishpond.

Draw a possible position for the table on the scale diagram below:



[2]

7. Frankie needs to order 400 cupcakes for a party.

Frankie needs to order lemon, strawberry and chocolate cupcakes in the ratio:

9:4:3

Frankie thinks there will be 100 more lemon cupcakes than strawberry cupcakes.

Is Frankie correct?

Show how you decide.



[3]

8. Drew is a manager of a company and needs to set the budget for next year.

This year there was a budget of $\$980\ 000$

Drew increases this budget by 4%.

Drew thinks the new budget will be less than £1 020 000

Is Drew correct?

Show how you decide.



9. Dayo needs to paint the outside of this cylinder, including the top and the bottom:



Not drawn to scale

Dayo thinks the total area to be painted is less than 20 000 cm²

Is Dayo correct?

Show how you decide.

Use π = 3.14



[3]

10. On Monday, Arya got a new TV package.

On Tuesday, Kai got the same TV package but got a 28% discount.

Kai pays £21.60 per month after receiving the discount.

How much more does Arya pay for the package?



[3]

11. Cam is setting up a new fish tank.

The fish tank is in the shape of a cylinder:



Cam uses this formula to work out how many pounds (lbs) of gravel to add to the tank:

Amount of gravel in pounds (lbs) = volume of tank divided by 4546

How much gravel does Cam need to add to the tank?

Use π = 3.14



12. Quinn wants to buy a new computer for £3000

Quinn paid £1500 into a new savings account two years ago.

The savings account paid 2% compound interest per year.

Quinn uses all of the money that is now in the savings account as a deposit towards the computer.

The balance will be paid in equal monthly instalments of £119.95

How long will it take Quinn to pay for the computer?

Show your working.



[4]

13. Jude grows sunflowers in two different fields.

These are the heights of each flower in Field A:

Field A							
134 cm	186 cm	120 cm	200 cm	118 cm	166 cm		

This is a summary of the heights of each flower in Field B:

Field B				
Mean height	162 cm			
Range	70 cm			

Jude claims:

- a) 'on average, sunflowers grew taller in Field A.'
- b) 'the heights are more consistent in Field A.'

Are both of Jude's claims correct?

Give reasons for your answers.

Show your working.

FieldA 134+186+120+200+118+166 =154cm Mear -118 = 82 cm= 200Range Reason - claim a) height for field A is lower than field B mean NO Reason - claim b) No, range of Field A is greater than field B

[4]

14. Zuri wants to put a wooden border around the flower bed shown:



Not drawn to scale

Zuri measured the dimensions of the garden in feet (ft).

The shop sells wood in metres (m).

Zuri will buy 12% more wood than needed to allow for mistakes.

How many metres of wood does Zuri need to buy in total?

Use 1 foot = 0.305 metres



15. Jordan wants to tile this floor:



Not drawn to scale

Jordan finds these prices:

Price per square metre (m ²)						
£80.50	£75.99	£50.99	£60.50	£100.00	£45.75	£100.00

Jordan buys the tiles with the median price.

How much will Jordan pay in total?

Give your answer to the nearest pound (\mathfrak{L}) .

Show your working.

Answer box is on the following page

Area (floor) = Area of square + Area of triangle $= (4.1 \times 4.1) + (\frac{1}{2} \times 4.1 \times 3.4)$ = 16.81 + 6.97 $= 23.78 m^2$ E45.75, E50.99, E60.50, E75.99, E80.50, Eloo, Eloo 23.78 × 75.99 = E1807.0422 = E1807 to nearest paind Answer £ / 807 [6]

This is the end of the assessment.