

Name _____

Level 2 Numeracy Functional Skills Autumn Term Formative Assessment



Candidate's Paper The Cafe

Activity 1 **1 ½ hours**



Candidate's Name:	
Date assessment started:	

Name _____

Candidate instructions

What you will need

- A pencil, pen and eraser
- A ruler
- A protractor
- You may use a calculator
- You may use a dictionary or spell check
- Your assessor will provide you with graph paper

What to do if you need help

Ask the person supervising your assessment if you need help with the instructions or extra time to finish your work.

End of assessment

When you have done as much work as you can:

- Check you have put your name and details on the cover of this assessment
- Hand your work to the person supervising your assessment

Name _____

Activity 1

You have **1 ½ hours** to complete this activity.

You may use a calculator.

Remember to show all working out.

Welcome to South Thames College Cafe. You are required to do some calculations for your new employer.

1. Yesterday the cafe sold a total of 180 teas and coffees. The number of teas and coffees sold were in the ratio of 2:7

Work out the number of teas and the number of coffees sold yesterday.

(2 marks)

Write the number of teas sold as a fraction of the total number of teas and coffees sold. The answer must be in its simplest form.

(1 mark)

(Total 3 marks)

Name _____

2. Here is a price list of hot drinks sold in the cafe.

Price List	
Tea	£1.15
Filter coffee	£1.00
Espresso	£1.15
Cappuccino	£1.50
Hot chocolate	£1.55

Find the total cost of

1 tea
1 espresso
2 cappuccino
2 hot chocolates

(2 marks)

The cafe adds a service charge of 12 ½ % to each bill.

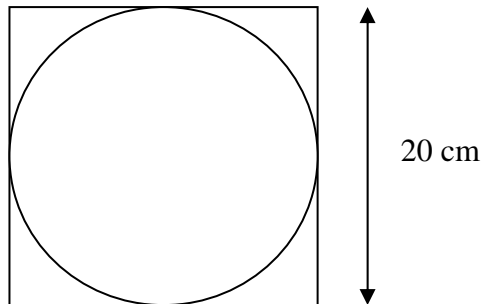
Calculate the service charge for the cafe bill above.

(2 marks)

(Total 4 marks)

Name _____

3. Table mats used in the cafe are circular.
The mats are cut from square card with a side measuring 20 cm.



Area of a circle is given by the formula:

$$\text{Area} = \pi r^2$$

Use the π button on your calculator or use 3.14 as the value for π .

What is the area of a circular mat?

(2 marks)

When the circular mat is cut out from the square card, the part of the card that is not used is wasted. What area of one card is wasted?

(2 marks)

(Total 4 marks)

Name _____

4. The cafe manager wants to know what the customers think about the cafe. A survey card is left on the tables for customers to complete. The results are shown below:

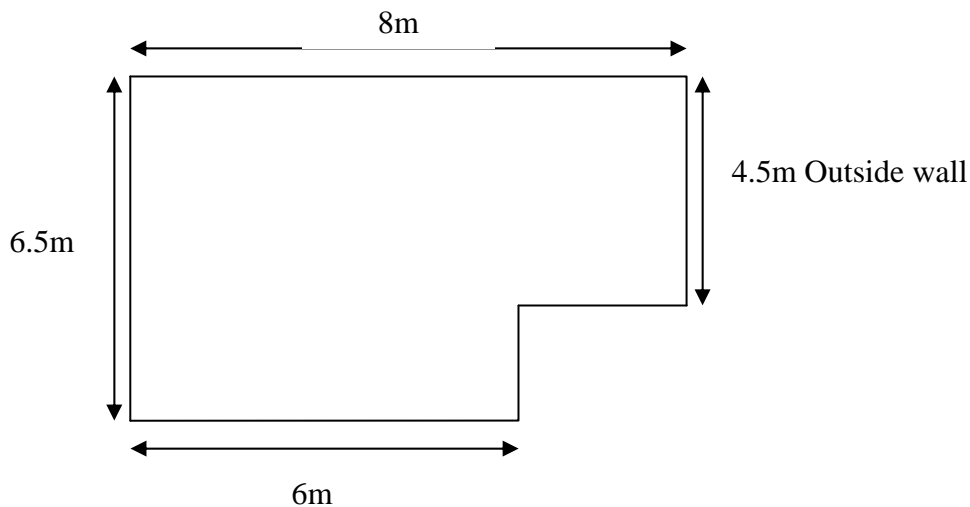
	Very good	Good	Satisfactory	Poor	Very Poor
The service I received today was	30	60	20	5	5
The quality of the food and drink I had today was	37	62	19	1	1
I thought the value for money was	25	70	5	16	4

The manager wants to display the results of the questionnaire on the staff notice board. Draw a pie chart to show the customers views about the service they received today.

(Total marks 6)

Questions 5 - 7 are about renovating the cafe

5. The cafe floor needs a new coat of varnish to protect it.



What is the area of the floor?

(Total 2 marks)

Name _____

6. The floor needs two coats of varnish to seal it properly.

A 5 litre tin of varnish costs £20.83 without VAT.

1 litre of varnish covers 8m^2 .

How many tins of varnish must be bought to cover the floor?

(2 marks)

What is the total cost for the paint **with** VAT at 17.5%?

(2 marks)

(Total 4 marks)

7. The cafe manager wants to fit a breakfast bar/shelf along the outside wall of the inside of the cafe.

The breakfast bar is to be 1800mm long by 700mm deep.








Using a scale of 1:50, draw a scale plan of the kitchen showing the position of the breakfast bar/shelf.

Use graph paper provided by the assessor.

(Total 5 marks)

Name _____

8. There is a promotion. Every customer buying a coffee and cake gets a scratch card.








STCC Scratch Card									
Line 1 Scratch one box only									
Line 2 Scratch one box only									

On every card there is a picture of a tick under one of the grey boxes on each line.

In order to win a prize the customer must uncover the 2 boxes with the tick pictures.







The diagram below shows a winning card and a losing card.

WINNING CARD

STCC Scratch Card									
Line 1 Scratch one box only									
Line 2 Scratch one box only									

Name _____

LOSING CARD

STCC Scratch Card									
Line 1 Scratch one box only									
Line 2 Scratch one box only					<div>Sorry no prize</div>				

What is the probability of uncovering the tick on the first line?

What is the probability of uncovering both ticks and winning a prize?

(Total 3 marks)

Name _____

The canteen manager decides to introduce a new range of organic drinks. She wants to find out the most popular drink. She asks customers to taste some of the drinks and give the drinks a score out of ten.

Each customer tastes two or three of the drinks.

The results of the first day's tasting are shown below.

Fruit Drinks (scored out of 10)					
Customer	Passion fruit	Pomegranate & Blueberry	Carrot & Coriander	Plum & Apple	Beetroot & Banana
A	8			8	3
B		6	6	7	
C			5		5
D		8	4		
E	9			6	
F			3		3
G	7			4	
H			10		3
I			2		5
J	8			7	
K	10				5
L	7		4		0
M	8			8	
N		7			4
O	7				4
P		6	6		
Q		8		8	5
R	9	7			
S	7		6		5
T			4	8	
Total Scores (day 1)	80	42	50	56	40

9. What fraction of the customers (labelled A to T) tried three drinks?

(2 marks)

State the most popular drink and give its mean customer score.

(2 marks)

Name _____

The manager compares the ranges of customer scores for the drinks. Carrot and coriander has the largest range.

Calculate this range.

How is this information useful to the manager?

(3 marks)

(Total 7 marks)

Maximum Total 36 marks

Pass mark is 24 out of 36

Answers

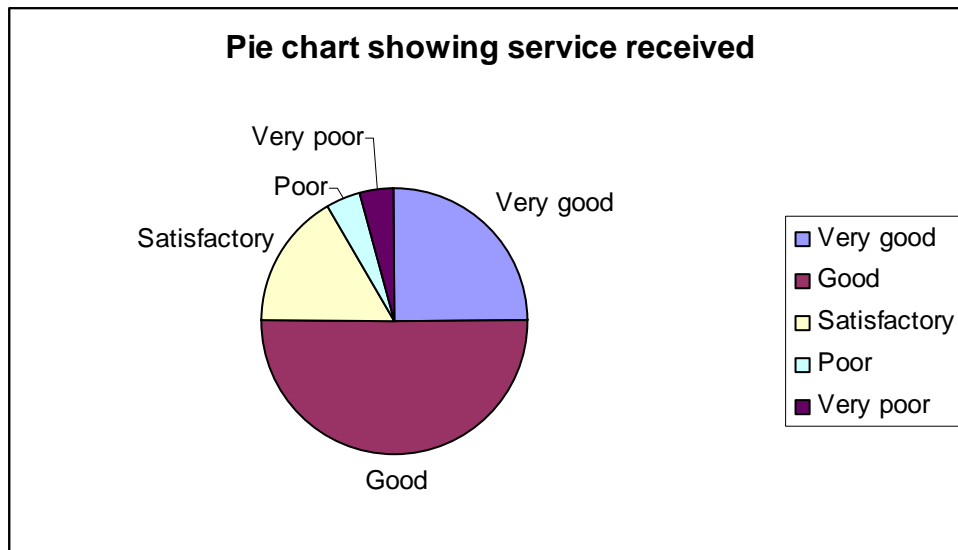
Answers

1. Teas – 40 1 mark &
Coffee – 140 1 mark

2/7 1 mark
2. Correct method, wrong answer, or answers £8.4
£8.40 1 mark or
2 marks

Correct method, wrong answer
£1.05 1 mark or
2 marks
3. Correct use of formula, wrong answer
314cm² 1 mark or
2 marks

Correct method, wrong answer
86cm² 1 mark or
2 marks



4. Title 1 mark
And correct labels & key 1 mark
And correct calculations for all sectors 2 marks
(90°, 180°, 60°, 15°, 15°
or 25%, 50%, 16.667%, 4.167%, 4.167% unrounded
rounded or truncated) **assume correct calculation if
sectors are drawn accurately**
5 sectors drawn correctly (90°, 180°, 60°, 15°, 15°) or
to their calculated values 2 mark
or
Or 3 sectors drawn correctly 1 mark
5. 48 (no units), method only eg (6.5 x 8)-(2x2) 1 mark
48m² 2 marks
6. 2.4 tins or 2 tins for one coat or 12 litres or complete
correct method 1 mark
allow follow through from Question 5 or

Answers

- 3 tins or follow through **2 marks**
[their answer to Question 5] x 0.25 rounded up
- 73.42575 rounded, unrounded, truncated, or a complete **1 mark**
correct method seen (**eg** 3x20.83x1.175), or (£)10.93575
rounded, unrounded or truncated (total VAT on paint), or
(£)3.64525 rounded, unrounded or truncated for VAT
only or (£)24.47525 rounded, unrounded or truncated
(for cost of tin of paint including VAT)
allow follow through from the number of tins
calculated in first part of this question **or**
(£)73.43 or (£)73.42 **2 marks**
7. Any 6 correct dimensions **1 mark**
accept correct dimensions drawn as indicative of
calculation **or**
Correct calculation of scaled dimensions (16cm, 9cm, **2 marks**
4cm, 4cm, 12cm, 13cm) or equivalent for walls AND
(3.6cm, 1.4cm) or equivalent for the sink unit.
- correct scale drawing of either room or sink unit $\pm 2\text{mm}$ **1 mark or**
correct scale drawing of room and sink unit $\pm 2\text{mm}$ **2 marks**
- sink unit drawn in a correct position against outer wall **1 mark**
8. 1 in 2 or 0.5 or $\frac{1}{2}$ or 50% (not 1:2) **1 mark**
- 1 in 5 **or** 0.2 **or** $\frac{1}{5}$ **or** 20% for second line (not 1:5) **1 mark**
Or **or**
1 in 10 or 0.1 or $\frac{1}{10}$ or 10% (not 1:10) **2 marks**
9. 5/20 **or** 0.25 **or** 25% **1 mark**
Or **or**
 $\frac{1}{4}$, a quarter, one quarter **2 marks**
- Passion fruit drink only **or** mean score of 8 only **1 mark**
Or **or**
Passion fruit drink with mean score of 8 **2 marks**
- Range is 8 **1 mark**
- Big difference between highest and lowest numbers **1 mark**
(or equivalent definition of range without reference to
customer scores)
or **or**
Customers have more different opinions of this
drink than the other drinks (or equivalent) **2 marks**