

**Functional Skills  
 Mathematics Assessment  
 Level 2**

**Learner name**

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**Run ID**

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**Learner signature**

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**Centre**

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**Assessment date**

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	Available marks	1 <sup>st</sup> Marker	2 <sup>nd</sup> Marker
Task 1 Q1a	2		
Q1b	1		
Q2a	6		
Q2b	3		
Q2c	1		
Q2d	3		
Q3a	4		
Q3b	3		
Q3c	1		
Q4	3		
Task 2 Q1a	6		
Q1b	6		
Q1c	1		
Q2	7		
Q3	3		
<b>Total</b>	<b>50</b>		

**Instructions to candidates**

You may use a calculator.

You **will** need a pen, pencil and a ruler.

You may need access to a 90<sup>0</sup> set square, a compass, and a protractor.

Use only blue or black ink. Pencil **must only** be used for drawing.

There are 2 tasks in this assessment.

You must attempt ALL tasks.

Total marks available: 50

You have **2 hours** to finish the assessment

## Task 1

### Question 1

Jess and Scott are planning a holiday to Nice in September.

Jess finds this information about average temperatures in Nice in September.

Year	2012	2013	2014	2015	2016
Average temperature °C	24	23	24	26	27

1a) What is the mean average temperature in Nice in September?

Show any workings out and write your answer in the box below. **(2 marks)**

1b) What is the range of temperatures in Nice in September?

Show any workings out and write your answer in the box below. **(1 mark)**

**Question 2**

Jess finds this information on flights and a hotel for the dates they want to travel.

<b>From:</b>	Manchester	<b>From:</b>	Nice
<b>To:</b>	Nice	<b>To:</b>	Manchester
<b>Date:</b>	9 Sep	<b>Date:</b>	16 Sep
<b>Time of flight:</b>	2 hrs 20 mins	<b>Time of flight:</b>	2 hrs 25 mins
<b>Total cost of return flight:</b>		£245.27 per person	

<b>Extras</b>	
<b>Insurance</b>	£10.35 per person
<b>Hold luggage</b>	£19.50 each piece of luggage per flight

<b>Hotel Plaza</b>	
£176.85 per room per night	
<b>Book early and get 31% discount on total cost of hotel stay</b>	

Jess and Scott decide to book their holiday early.

They each want insurance and both want one piece of luggage in the hold on the flights.

They will book one hotel room.



**2a) What is the total cost of their holiday?**

Show any workings out and write your answer in the box below.

**(6 marks)**

Jess and Scott want to hire a car in France for one week.

Scott compares the cost of hiring a car in the UK with the cost of hiring in France.

<p><b>Economy Cars UK</b> £95.36</p>
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<p><i>Voiture de Français</i> <i>110.16€</i></p>
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The exchange rate is £1 = 1.16€

Scott thinks the difference between the two prices is less than 50p.

**2b) Work out if Scott is correct.**

Show any workings out and write your answer in the box below.

**(3 marks)**

**2c) Show how you can check your answer.**

Show any workings out and write your answer in the box below.

**(1 mark)**

Jess and Scott will pick up the hire car from Nice airport.

Scott finds out

- the distance between the airport and the hotel is 35 km
- the average speed on French main roads is 90 km/h.

He thinks it will take them 40 minutes to drive from the airport to the hotel.

**2d) Work out if Scott is correct. Explain your answer.**

Show any workings out and write your answer in the box below.

**(3 marks)**

### Question 3

Jess finds these weather predictions for their week in Nice.

Average daily temperature 76.3 degrees Fahrenheit

Chance of rain 18%

She wants to know the temperature in degrees Celsius.

Jess uses this formula to convert from degrees Fahrenheit to degrees Celsius.

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

C = temperature in degrees Celsius

F = temperature in degrees Fahrenheit

- 3a) **What is 76.3 degrees Fahrenheit in degrees Celsius?**  
**Give your answer to one decimal place.**

Show any workings out and write your answer in the box below.

**(4 marks)**

The chance of rain while Jess and Scott are on holiday is 18%.

Jess thinks the probability it will **not** rain while they are on holiday is  $\frac{4}{5}$ .

Scott doesn't think that Jess is right.

**3b) Work out who is correct.**

Show any workings out and write your answer in the box below. **(3 marks)**

**3c) Show how you can check your answer.**

Show any workings out and write your answer in the box below. **(1 mark)**



**Question 4**

Jess and Scott arrive at the airport on 9 September.

Their flight from Manchester to Nice is due to take off at 11.15am.  
The flight lasts for 2 hours 20 minutes.

The flight take off is delayed by 15 minutes.

During the flight the pilot announces he can reduce the flight time by 20 minutes because of the wind direction.

The local time in Nice is one hour ahead of the local time in Manchester.

**4) What is the local time when the plane arrives in Nice?**

Show any workings out and write your answer in the box below.

**(3 marks)**

## Task 2

### Question 1

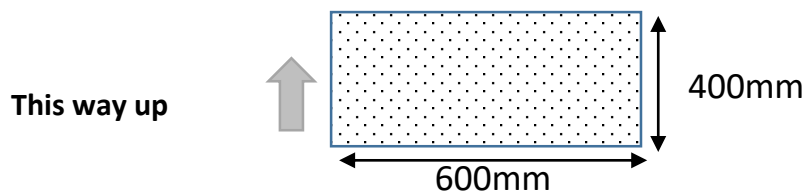
Scott works as a tiler and kitchen fitter.

A client asks Scott to tile a kitchen wall. The wall to be tiled is 3.2m by 1.8m.



Diagrams **not**  
drawn to scale

The tiles the client wants are rectangular 600mm by 400mm



**1a) How many tiles does Scott need for the wall?**

Show any workings out and write your answer in the box below.

**(6 marks)**

Scott completes an invoice for his client.

The wall tiles cost £38 a box.

Scott buys 6 boxes of wall tiles.

He gets a discount of  $\frac{1}{5}$  off the total cost of the wall tiles.

Scott also charges £30 an hour for labour.

He adds 20% VAT to the total bill.

<b>SKT Kitchens</b>	
Wall tiles (6 boxes with discount)	
Labour (7 hours @ £30)	
Total	
VAT @ 20%	
<b>Total cost</b>	

**1b) Complete the invoice for Scott.**

Show any workings out and write your answer in the box below.

**(6 marks)**

**1c) Show how you can check your answer.**

Show any workings out and write your answer in the box below.

**(1 mark)**

## Question 2

Scott is asked to lay kitchen carpet for another client.

He draws this sketch of the kitchen floor.

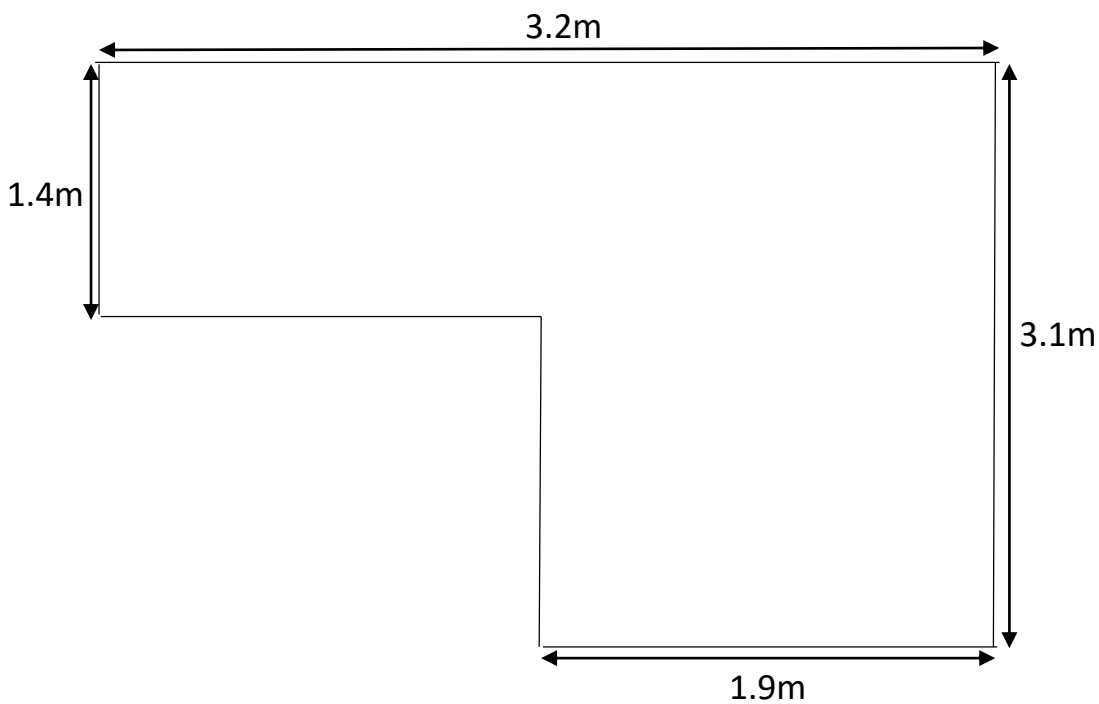


Diagram **not**  
drawn to scale

The carpet comes on a roll, Scott will have to cut this to size.

When ordering Scott adds 10% to allow for error.

**2a) What is the percentage of carpet wasted? Give your answer to 2dp.**

Show any workings out and write your answer in the box below.

**(4 marks)**

The client wants to use carpet which costs £17.20 per square metre.

**2b) What is the total cost of the carpet?**

Show any workings out and write your answer in the box below.

**(3 marks)**

### **Question 3**

Scott draws a scale diagram of the floor of a kitchen.  
He uses a scale of 1:20

Scott wants to draw a kitchen island on the scale diagram.

The dimensions of the kitchen island are 2000mm by 1000mm.

**3) What are the dimensions of the kitchen island on the scale diagram?**

Show any workings out and write your answer in the box below.

**(3 marks)**



**END OF ASSESSMENT**

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