ncfe.

Sample Paper: P000291

NCFE Functional Skills Qualification in Mathematics at Level 1 (501/2325/7)

Time Allowed 2 HOURS

You **need** the following to complete this assessment:

- ruler
- calculator

Read each document and activity carefully and attempt to answer **all** activities.

Write your answers in the spaces provided and ensure that your writing is legible.

If extra pages are used, please make sure your name is on them and they are securely fastened to this booklet.

At the end of the assessment hand all documents over to the invigilator as instructed.

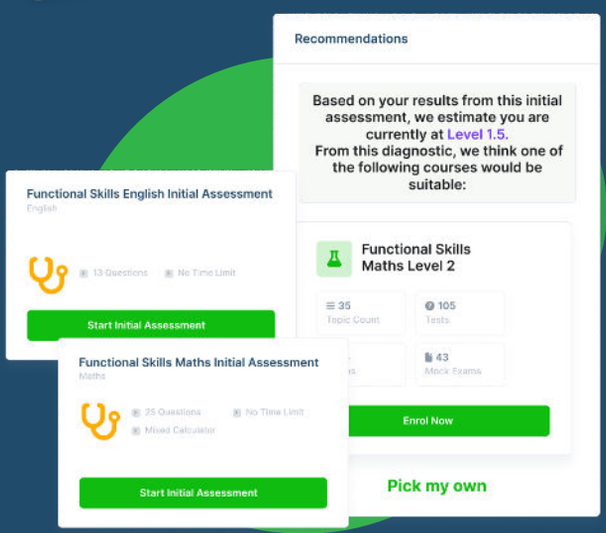
DO NOT TURN OVER UNTIL YOU ARE INSTRUCTED TO DO SO BY THE INVIGILATOR.

For Examiner use only:

Activity number	1	2	3	Total
Total Marks awarded				
Total Marks available	**14**	**15**	**11**	**40**

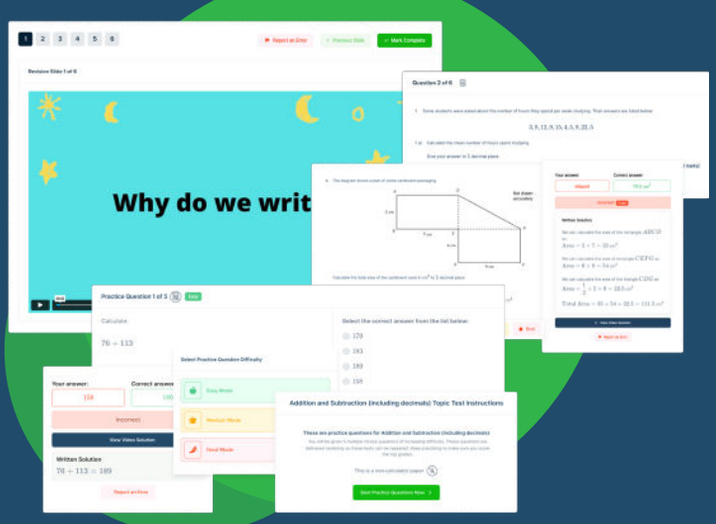
PASS FUNCTIONAL SKILLS

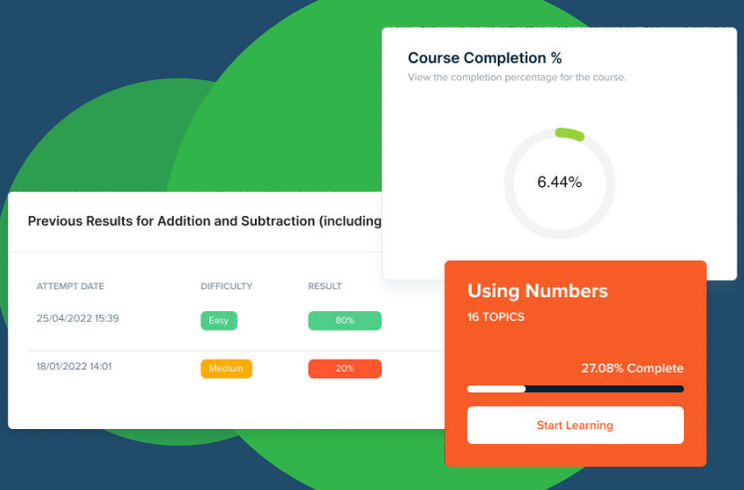
FUNCTIONAL SKILLS ONLINE COURSES



- Your answers are analysed to determine your Current Level
- Suggested courses for you to enrol on based on your calculated level
- Always know the level you are currently working at
- Determine when you are ready to sit your exam

- Explainer videos on every topic
- Quick-fire style mutiple choice questions
- Test your knowledge with exam-style questions
- Written solutions for all questions





- See your progress through as you progress through each topic area
- Get your average scores for practice questions, topic tests and mock exams
- View all practice question, topic test and mock exam attempts over time
- View historical attempts to analyse your progress over time

Or visit
passfunctionalskills.co.uk

Going to work

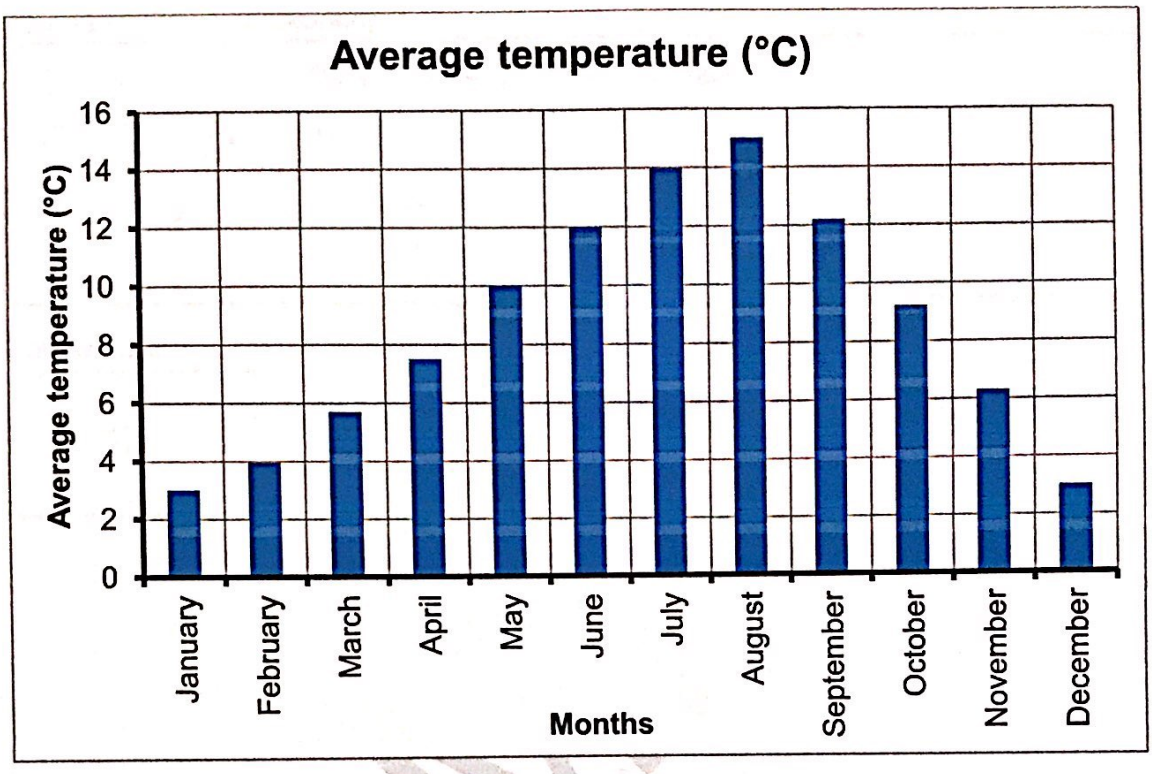
This assessment is about going to work.

Complete activities 1, 2 and 3 based on the documents provided for each activity.

Activity 1

Task A

1. The chart shows the average monthly temperature last year.



You have recently started a new job. You want to travel by motorcycle.
You do not want to use a motorcycle when it is too cold.

Use the chart to tell you when a month had an average temperature of 4°C or lower.

How **many** months of the year was this? **Name** the months in your answer.

Marks available: 2

You must show your working:

Your answer:

3 months December January February

2. Using the chart, what is the probability of any month having an average temperature below 6°C?

Marks available: 2

You must show your working:

4 months Dec, Jan, Feb, Mar
Out of 12.

$\frac{4}{12} = \frac{1}{3}$

Your answer:

$\frac{1}{3}$

Task B

1. In the first 4 weeks in your job you worked Monday to Friday. There were 12 days when you used the bus. On the other days you travelled to work by motorcycle.

What was the ratio of using the bus compared to using the motorcycle? Show this ratio **in its simplest form**.

Marks available: 2

You must show your working:

Total days = $4 \times 5 = 20$.
Bus = 12 Motorcycle = $20 - 12 = 8$.
Ratio = $12 : 8 = 3 : 2$.

Your answer:

3 : 2

2. You are at work for 6 hours a day. You also spend time travelling to and from work.

The ratio of the amount of time spent travelling compared to being at work is 1:4

How much time do you spend travelling each day?

Marks available: 2

You must show your working:

1 : 4
4 parts is 6 hours
1 part is 1.5 hours = 1h30m.
So travelling is 1h30m.

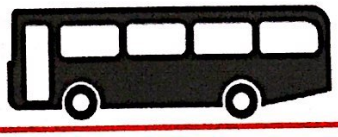
Your answer:

1 **Hours** 30 **Minutes**

Task C

1. The timetable shows 3 bus times.

Route 10



Peak Times			
Bus Station	07:40	07:55	08:16
West Avenue	07:47	08:02	08:17
Clifton Road	07:55	08:10	08:25
Railway Station	08:00	08:15	08:30
Shopping Centre	08:08	08:23	08:38

Your answer

Your answer

Each bus has the same journey time from the Bus Station to the Shopping Centre where you work.

Complete the timetable. Enter the 2 missing times in the timetable.

Marks available: 2

Use the space below for your working:

2. The timetable shows 3 bus times later in the day.

Route 10

Off Peak			
Bus Station	08:28	08:45	09:05
West Avenue	08:36	08:53	09:13
Clifton Road	08:44	09:02	09:21
Railway Station	08:49	09:08	09:27
Shopping Centre	09:04	09:19	09:34

Calculate the average (mean) journey time from the Bus Station to the Shopping Centre for these 3 buses.

Marks available: 4

You must show your working:

(36 + 34 + 29) / 3 = 99/3 = 33 mins

Your answer:

33 mins

Show how you can check your answer:

33 x 3 should equal 36 + 34 + 29.

Total marks available: 14

Activity 2

Task A

1. The cost of petrol for the motorcycle for each kilometre is calculated by:

Cost = distance in km x £0.09

The distance from home to work is 6 kilometres (km).

Calculate the weekly cost of the journey to and from work. You make the journey **there and back** for 5 days each week.

Marks available: 3

You must show your working:

$6 \times 2 \times 5 \times 0.09 = £5.40$.

(6 ↑ distance (km); 2 ↑ there and back; 5 ↑ days at work per week; 0.09 ↑ cost per km)

Your answer:

£5.40

2. The bus will cost £13 per week if tickets are bought each day. By buying a Weekly Saver ticket you can save 15%

How much does the Weekly Saver ticket cost?

Marks available: 3

You must show your working:

£13 × 5 = £65
£65 × 0.85 =

£13 × 0.85
= £11.05

Your answer:

£11.05

3. The motorcycle's fuel tank holds up to 5 litres.

How much will it cost to fill the tank from empty at a price of £1.23 per litre?

Marks available: 2

You must show your working:

5 × £1.23 = £6.15

Your answer:

£6.15

Task B

Your weekly wage from your new job is £180

You expect to pay these costs each week:

Weekly costs	
Household bills	£25
Rent	£50
Food and leisure	£60
Motorcycle costs	£27
Bus travel	£13

Can you afford gym membership at £15 per week? Show your working.

Marks available: 3

You must show your working:

£25 + £50 + £60 + £27 + £13
= £175
£180 - £175 = £5 < £15.

Your answer:

No.

Task C

1. The information below shows your spending on food and leisure over 6 months.

September was £230, October was £250, November was £260, December was £330, January was £210, February was £240

Show these costs in a **table** with suitable titles.

Marks available: 2

Your answer:

Month	Spending
September	£230
October	£250
November	£260
December	£330
January	£210
February	£240

2. What is the range of your monthly spending on food and leisure over the 6 months?

Marks available: 2

You must show your working:

Highest: £330
Lowest: £210
330 - 210 = £120

Your answer:

£120

Total marks available: 15

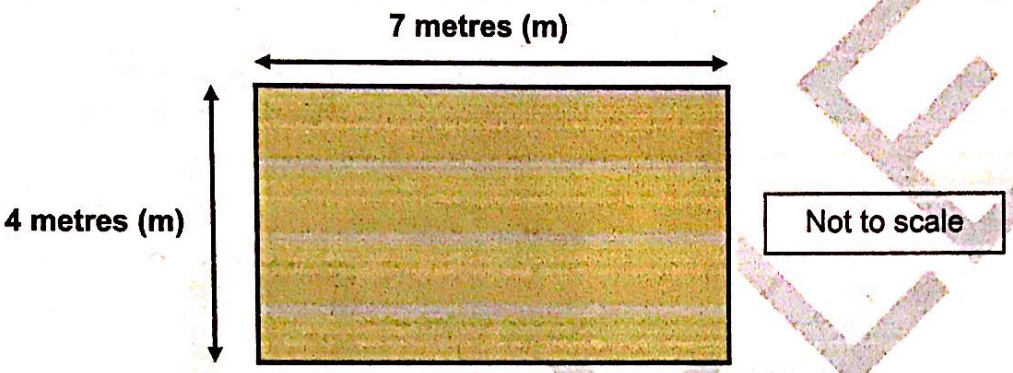
Activity 3

Task A

At work, your manager has asked you for help in planning a new office.

Calculate the cost of flooring for the room shown.

The cost of the flooring is £24.99 per m^2



Marks available: 4

You must show your working:

$7 \times 4 = 28m^2$.
$28 \times £24.99 = £699.72$.

Your answer:

£699.72

Show how you can check your answer:

699.72 ÷ 24.99 should equal 7 × 4.

Task B

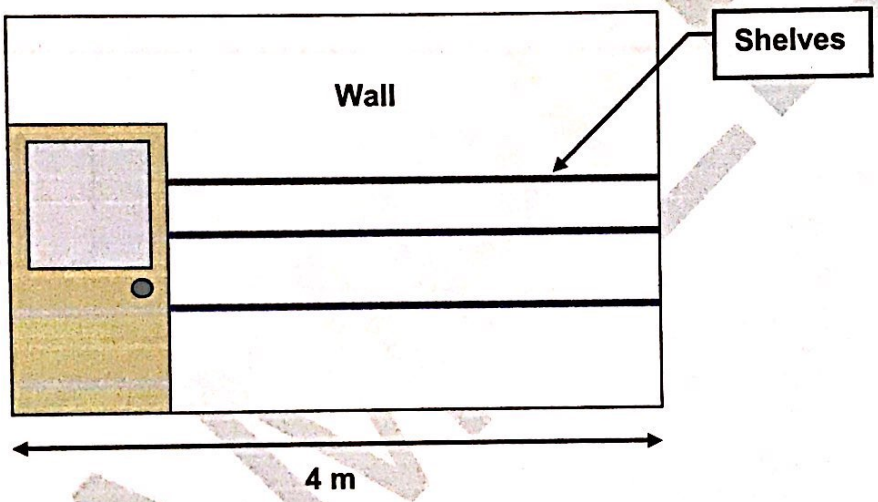
1. You need to work out how much shelving is needed for the new office.

The shelves will fit along one wall. They will take up the space between the door and the corner.

There will be 3 shelves made from wood. The door is 90 centimetres (cm) wide.

What will be the total length of the wood used for all 3 shelves, **in metres**?

Not to scale



Marks available: 3

You must show your working:

90 cm = 0.9 m.
4 - 0.9 = 3.1 m for one shelf.
3.1 x 3 = 9.3 m.

Your answer:

9.3m

2. The wood for the shelves is only available in lengths of 2.4 m
The lengths can be joined together.

How many lengths of wood must be bought to make the shelves?

Marks available: 2

You must show your working:

$9.3 \div 2.4 = 3.875$.
So need 4 lengths.

Your answer:

4

Please turn over.

Task C

Your manager wants to make a section of the car park suitable for parking motorcycles.

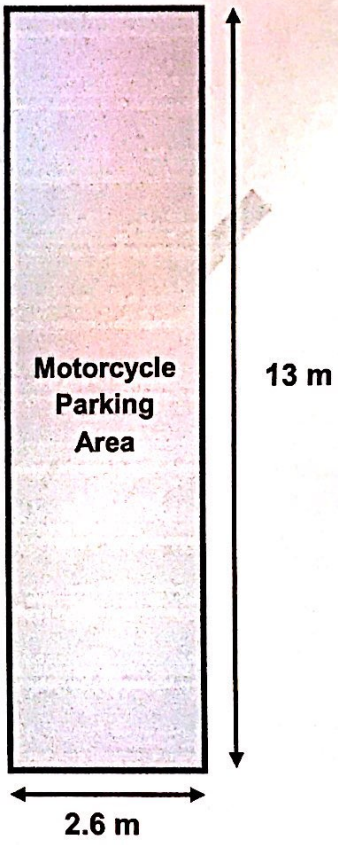
The size of the car park area is shown in the diagram.

The parking bays will be 1.5 metres (m) x 2.5 m

What is the highest number of parking bays that can be fitted in the space shown below?

Marks available: 2

Not to scale



Put 2.5m along the 2.6m length.
Then we can have 1.5m along 13m length.
$13 \div 1.5 = 8\frac{2}{3}$
So can have 8 spaces.

You must show your working:

Your answer:

8

Total marks available: 11

End of assessment

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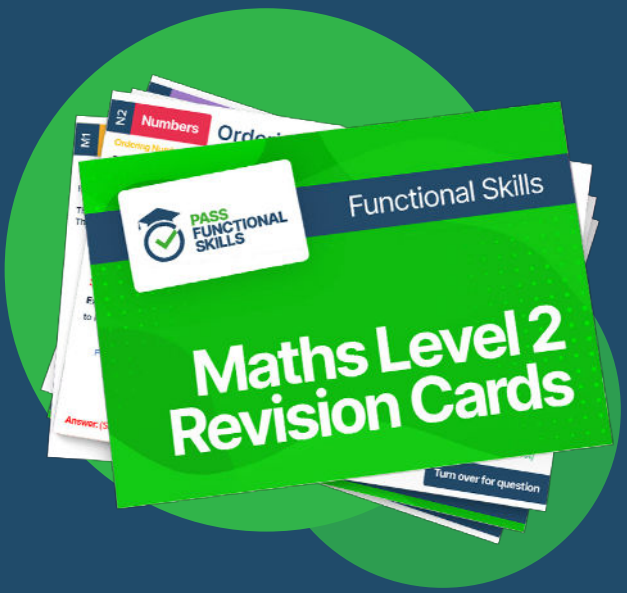

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