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NCFE Level 2 Functional Skills Qualification in Mathematics (603/5060/X)

Paper number:	P001258
Section A:	Non-calculator Test

Assessment window: Monday 14 October 2019 – Friday 18 October 2019
Time allowed: 30 minutes

Learner instructions

- Answer **all** questions.
- Read each question carefully.
- Write your answers in the spaces provided.
- Show your working, as marks may be awarded for working.
- State units in your answers, where appropriate.
- Check your work.

Learner information

- Section A contains **Activity 1** only.
- The maximum mark for this section is **15**.
- The marks available for **each** question are shown in brackets.

To be completed by the examiner		Mark
A	Activity 1	/ 15
B	Activity 2	/ 15
	Activity 3	/ 15
	Activity 4	/ 15
TOTAL MARK		/ 60

Resources

You will need a:

- pen, with black or blue ink
- pencil and eraser
- 30 cm ruler
- protractor.

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

Please complete the details below clearly and in BLOCK CAPITALS.

Learner name _____

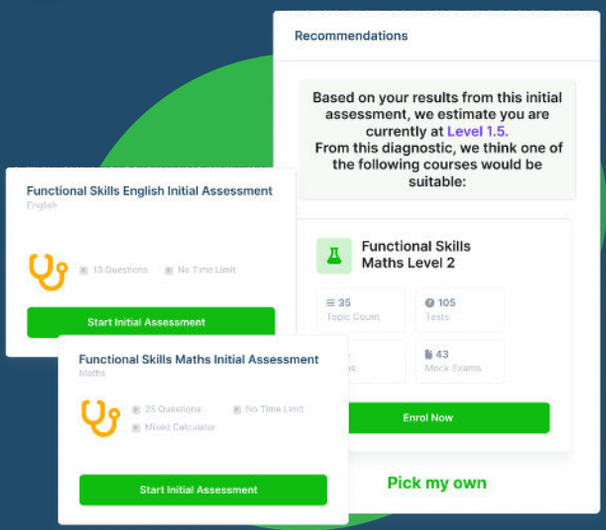
Centre name _____

Learner number _____ Centre number _____

Do not turn over until the invigilator tells you to do so.

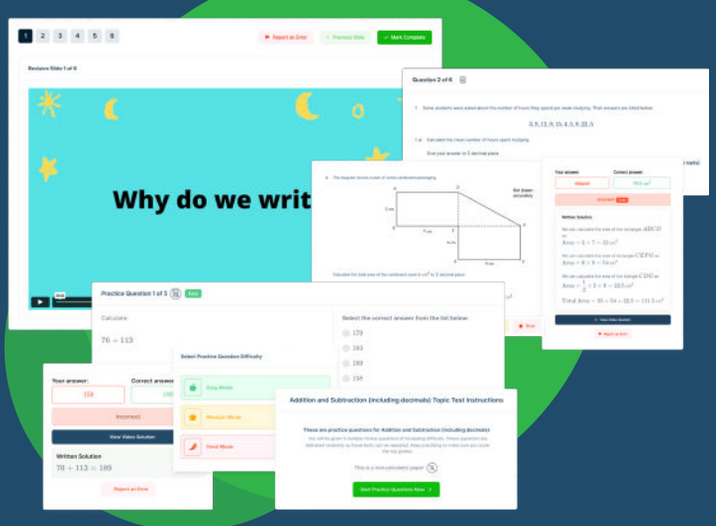
PASS FUNCTIONAL SKILLS

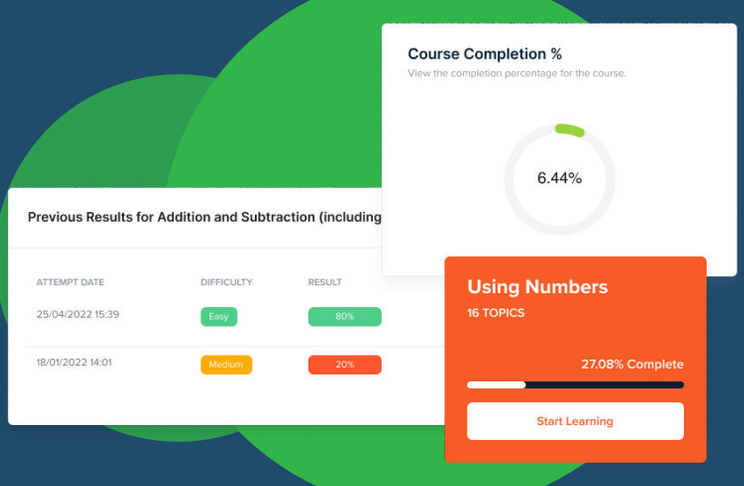
FUNCTIONAL SKILLS ONLINE COURSES



- 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
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Activity 1: Swimming

1 (a) Asha often goes swimming at Upton leisure centre.

She pays £5.20 each time she swims.

Next month the price will increase by 12.5%

How much more will Asha need to pay for each swim?

Give your answer in pence.

[2 marks]

$0.125 \times £5.20 =$

$£0.625 + £0.025 = £0.65 = 65p$

Your answer: 65 **pence**

1 (b) £5.20 is 30% more than the price at Downton leisure centre.

Calculate the price at Downton leisure centre.

[2 marks]

$£5.20 \div (1+0.3) = £5.20 \div 1.3$

$= £4$

Your answer: £ 4

Examiner use on

1 (c) The pool where Asha swims is rectangular.

It is 2500 cm long and 1250 cm wide.

The four sides of the swimming pool are 150 cm deep.

They are covered with small square tiles of different colours.

Each small tile has an area of 1 cm^2

Asha thinks,
"There must be over a million small tiles covering the sides of this pool!"

Is Asha correct?

Explain how you decide.

[4 marks]

$2 \times 150 \times 2500 = 750000 \text{ cm}^2$.

$2 \times 150 \times 1250 = 375000 \text{ cm}^2$.

$$\begin{array}{r} 750\,000 \\ 375\,000 \\ \hline 1,125,000 \end{array}$$

Your answer: Yes.

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Please turn over for the next question.

1 (d) Asha reads that the women's Olympic record for swimming 100 m is 52.7 seconds.

This means that the record holder swam at an average speed of 1.9 metres per second.

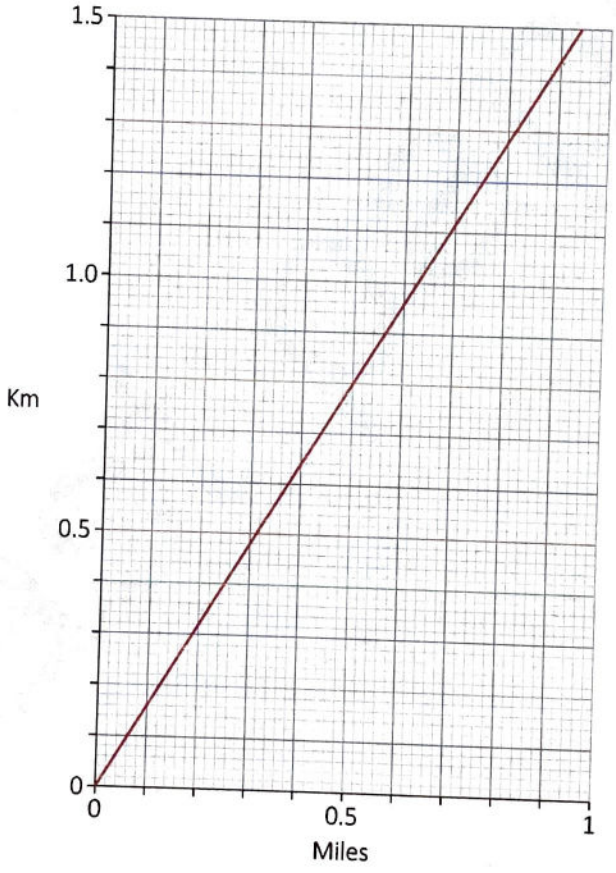
A goldfish can swim at a speed of about 0.9 miles per hour.

Did the Olympic record holder swim faster than a goldfish?

Show how you decide.

This conversion graph will help you.

[4 marks]



0.9mph = 1.44km/hr.

= 1440m/hr.

= $\frac{1440m}{3600s}$ = 0.4m/s.

0.4 < 1.9

Your answer: Yes.

1 (e) Asha swims 1 km each time she goes to the pool.

She always records how long this takes her.

The table shows her data for 10 swims.

Time taken to swim 1 km (minutes)	Number of swims
25 < time ≤ 26	2
26 < time ≤ 27	4
27 < time ≤ 28	4

Estimate Asha's mean time to swim 1 km

[3 marks]

$(25.5 \times 2) + (26.5 \times 4) + (27.5 \times 4)$

$= 51 + 106 + 110$

$= 267$ mins

$2+4+4 = 10.$

$\frac{267}{10} = 26.7$ mins (average).

Your answer: 26.7 **minutes**

[Total marks: 15]

This is the end of Section A.

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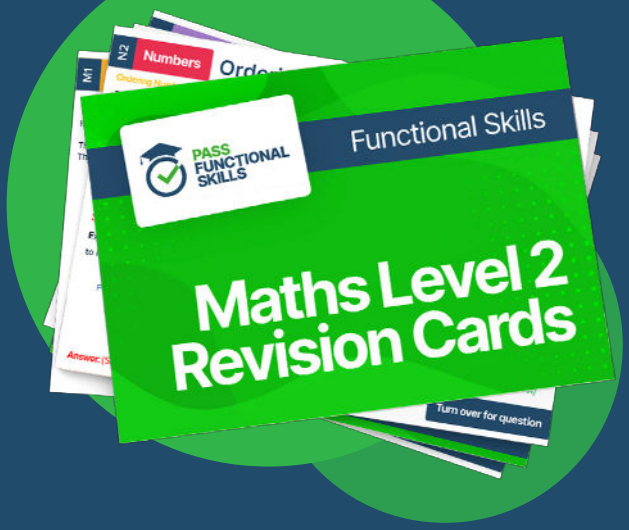
Functional Skills Maths
Level 2 Practice Papers



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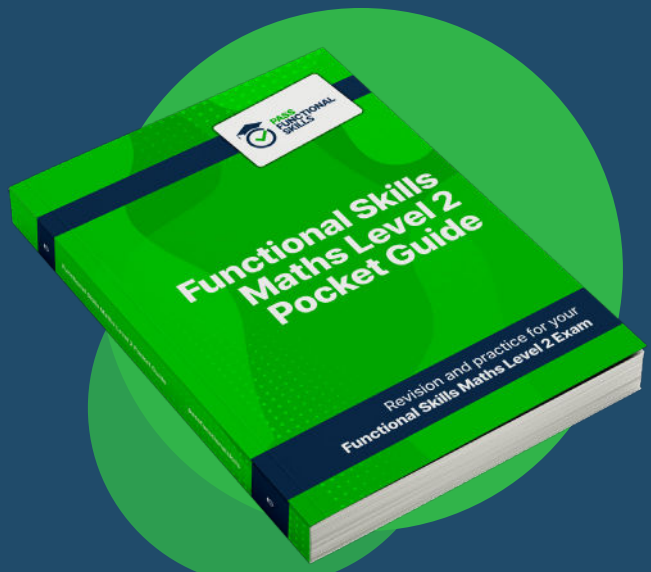

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