



# FUNCTIONAL SKILLS MATHS & ENGLISH

## LEVEL 1 & 2 EXAMS

### WHO WE ARE

## Leading training company for 26 years

Intech Centre is an established training provider based in Islington, London, with over 26 years of experience in delivering education, employability and digital skills programmes.

Intech Centre specialises in **Functional Skills English and Maths Level 1 & 2**, helping learners successfully pass Level 1 and Level 2 Functional Skills exams required for university entry, apprenticeships, teacher training, nursing courses and many other professional pathways.

Thousands of learners have used our resources, courses and exam services to achieve nationally recognised qualifications.

[BOOK NOW](#)[LEARN MORE](#)

*\* The materials in this document are the intellectual property of the relevant awarding organisation and are shared for educational and revision purposes only. Intech Centre does not claim ownership of these materials and all rights remain with the respective awarding body.*

### SERVICES

## Courses

- Functional Skills Maths
- Functional Skills English

## Tutoring

- Functional Skills Maths & English Exam Tutoring

## EXAMS

- ➔ Functional Skills **Maths** Level 1 or 2 Exam **in London**
- ➔ Functional Skills **English** Level 1 or 2 Exam **in London**
- ➔ **Online** Functional Skills **Maths** Level 1 or 2 Exam
- ➔ **Online** Functional Skills **English** Level 1 or 2 Exam



[www.intechcentre.com](http://www.intechcentre.com)



362 Essex Road  
Islington N1 3PD



020 7354 5655

**BOOK YOUR FUNCTIONAL SKILLS EXAM NOW!**

Please write clearly in block capitals.

Centre number

Candidate number

Surname \_\_\_\_\_

Forename(s) \_\_\_\_\_

Candidate signature \_\_\_\_\_

I declare this is my own work.

# Functional Skills Level 2 MATHEMATICS

## Paper 2 Calculator

Monday 13 January 2020

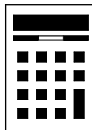
Afternoon

Time allowed: 1 hour 30 minutes

### Materials

For this paper you must have:

- a calculator
- mathematical instruments.



### Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- State the units of your answer where appropriate.

For Examiner's Use	
Question	Mark
1–7	
8	
9	
10	
11	
12	
<b>TOTAL</b>	

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 60.
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.
- If your calculator does not have a  $\pi$  button, take the value of  $\pi$  to be 3.142

### Advice

In all calculations, show clearly how you work out your answer.

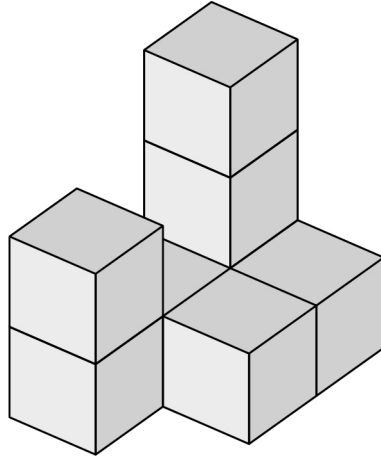


J A N 2 0 8 3 6 2 2 0 1

## Section A

Answer **all** questions in the spaces provided.

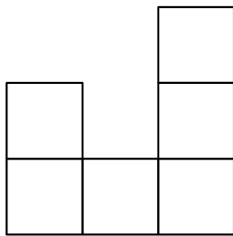
- 1 The diagram shows a 3-D shape.



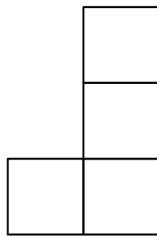
Which is the plan view of the shape?  
Circle the correct letter.

[1 mark]

A



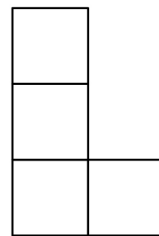
B



C

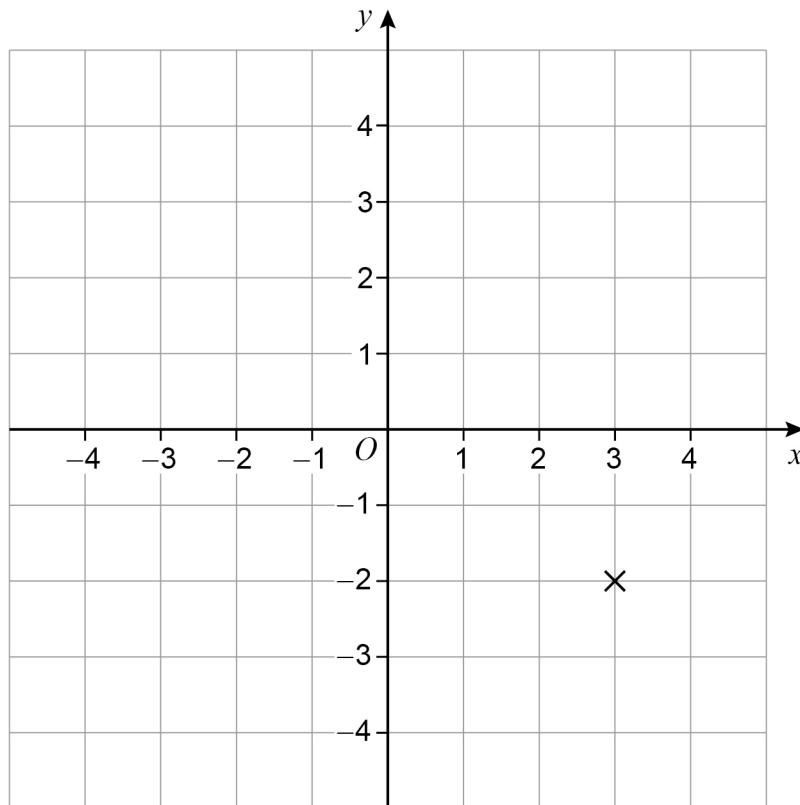


D



- 2 Write down the coordinates of the point marked X.

[1 mark]



Answer ( \_\_\_\_\_ , \_\_\_\_\_ )

- 3 Increase 1670 by 27%

[2 marks]

---

---

---

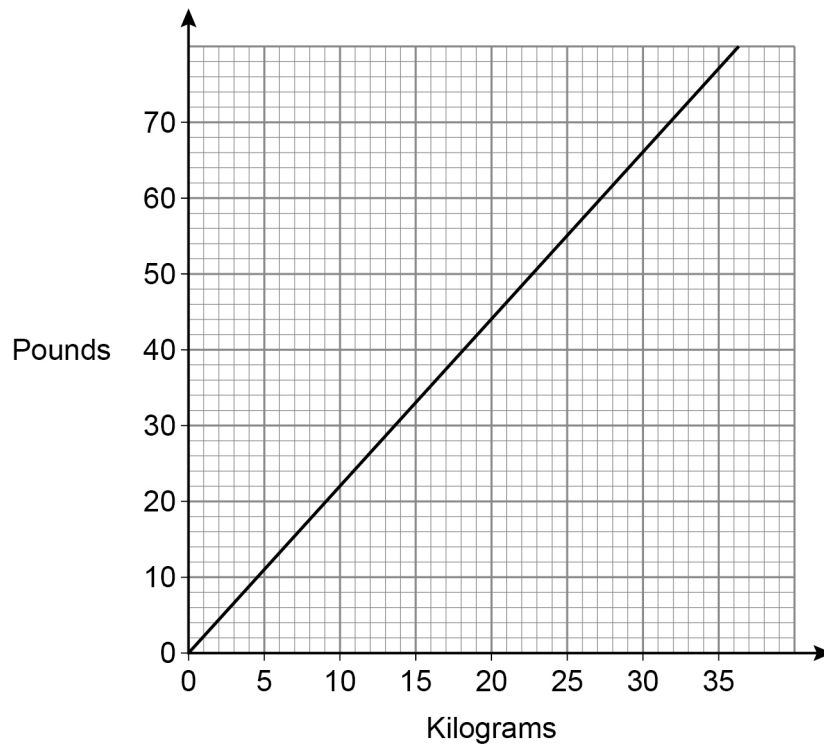
---

Answer \_\_\_\_\_

Turn over ►



- 4 The graph can be used to convert between pounds and kilograms.



Use the graph to convert 40 pounds to kilograms.

[2 marks]

Answer \_\_\_\_\_ kilograms



5 Calculate  $1\frac{3}{4} + 2\frac{4}{5}$

[1 mark]

---

---

---

Answer \_\_\_\_\_

6 Complete the table to show equivalent fractions, decimals and percentages.

[2 marks]

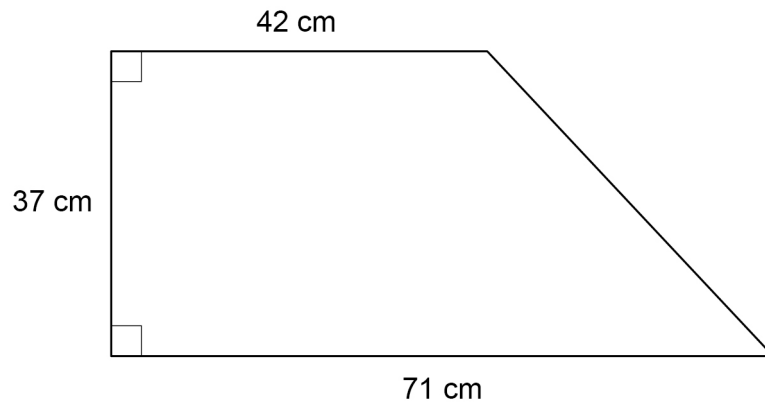
Fraction	Decimal	Percentage
$\frac{3}{8}$		37.5%
	0.15	15%

Turn over for the next question

Turn over ►



- 7 A shape is made from a rectangle and a triangle.



Not drawn  
accurately

Work out the area of the shape.

[3 marks]

---

---

---

---

---

---

---

---

---

Answer \_\_\_\_\_  $\text{cm}^2$

12



**Section B**

Answer **all** questions in the spaces provided.

**8 Fashion blogger**

Alex is a fashion blogger.

Companies pay her to promote their goods.

**8 (a)** Alex writes 30 posts promoting Company A.

The table shows the number of views of each post.

Number of views, $x$	Frequency		
$0 \leq x < 30\,000$	5		
$30\,000 \leq x < 60\,000$	9		
$60\,000 \leq x < 90\,000$	12		
$90\,000 \leq x < 120\,000$	4		
	Total = 30		

Alex also writes 23 posts promoting Company B.

The total number of views of these posts is 1 223 600

Which company receives the **higher** average number of views, A or B?

You **must** show your working.

**[4 marks]**

---



---



---



---



---



---



---

Turn over ►



Some of the posts were about clothing and the rest were about shoes.

The table shows the number of each.

	Company A	Company B
Clothing	21	13
Shoes	9	10

One of the posts is chosen at random.

**8 (b)** Work out the probability that it is about clothing.

**[1 mark]**

---

---

---

Answer \_\_\_\_\_

**8 (c)** Work out the probability that it is from Company A **and** is about shoes.

**[1 mark]**

---

---

Answer \_\_\_\_\_



- 8 (d)** In a year, Alex wrote 1460 posts promoting companies.  
She was paid £75 for each post that had at least 65 000 views.  
In total, she was paid £36 000

What percentage of her posts had at least 65 000 views?

**[3 marks]**

---

---

---

---

---

---

---

---

Answer \_\_\_\_\_ %

9

**Turn over for the next question**

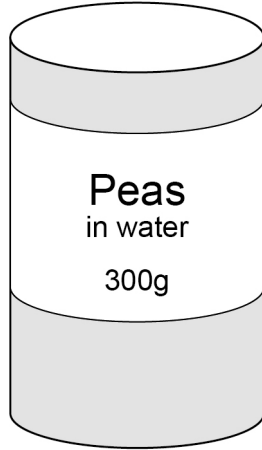
**Turn over ►**



**9 Tinned food**

A company makes tinned food.

**9 (a)** A tin is filled with peas and water.



The contents of the tin have a total mass of 300 grams.

mass of peas : mass of water = 3 : 2

240 of these tins are packed into a box.

Work out the total mass of peas in the box.

Give your answer in kilograms.

**[5 marks]**

---

---

---

---

---

---

---

---

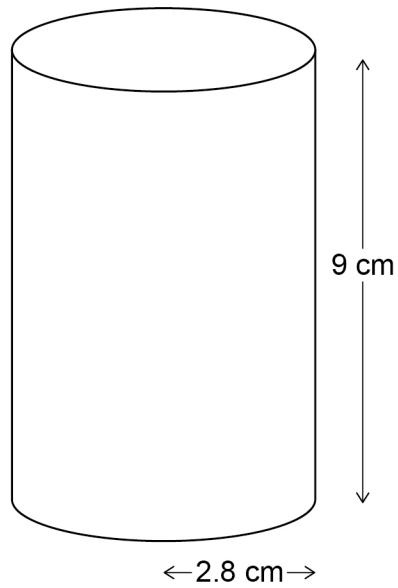
---

---

Answer \_\_\_\_\_ kilograms



- 9 (b) A tin for carrots is a cylinder with radius 2.8 cm and height 9 cm



When filled, one sixth of the volume of the tin of carrots is water.  
The company uses 425 litres of water each day in tins of carrots.  
1 litre = 1000 cm<sup>3</sup>

How many tins of carrots does the company make each day?

[5 marks]

---



---



---



---



---



---



---



---



---



---

Answer \_\_\_\_\_

10

Turn over ►



**10 University student**

Marco is about to start university.

The table shows his total expected income for the **year**.

	Amount (£)
<b>Student loan</b>	8700
<b>Part-time job</b>	4800

Marco budgets for the following expenses each **month** for 12 months.

	Amount per month (£)
<b>Accommodation</b>	589.00
<b>Living expenses</b>	186.00
<b>Entertainment</b>	65.00
<b>Travel</b>	87.50

**10 (a)** Marco will save any income that he does not spend.

How much does he expect to save in the **year**?

**[4 marks]**

---



---



---



---



---



---



---

Answer £ \_\_\_\_\_



- 10 (b)** On Marco's 14th birthday, his parents put £2000 into a bank account for him.  
The account pays compound interest at a rate of 1.5% per annum.  
Marco can access the account on his 21st birthday.

How much will be in the account on his 21st birthday?

**[3 marks]**

---

---

---

---

---

---

---

---

---

Answer £ \_\_\_\_\_

_____
7

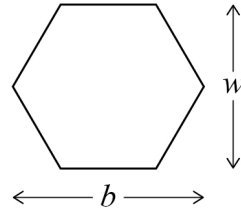
**Turn over for the next question**

**Turn over ►**



**11 Jewellery**

- 11 (a)** Mo makes and sells jewellery.  
He makes pendants in the shape of hexagons.  
The hexagons are made of glass and have wire around the perimeter.



Not drawn  
accurately

Here is a formula for the perimeter,  $P$ , of the hexagon.

$$P = 6 \times \sqrt{\left(\frac{b}{4}\right)^2 + \left(\frac{w}{2}\right)^2}$$

$b$  is the length of the pendant

$w$  is the width of the pendant

Mo makes pendants with length 6.4 cm and width 5.5 cm

He buys the wire in reels with 4 metres of wire on each reel.

How many pendants can Mo make using one reel of wire?

You **must** show your working.

**[5 marks]**

---



---



---



---



---



---



---



---

Answer \_\_\_\_\_



**11 (b)** Mo makes some pendants.

The glass in each pendant is red, blue or yellow.

$\frac{2}{11}$  of the pendants are red

blue pendants and yellow pendants are in the ratio 2 : 1

What fraction of the pendants are blue?

**[4 marks]**

---

---

---

---

---

---

---

Answer \_\_\_\_\_

9

**Turn over for the next question**

**Turn over ►**





- 12 (b)** Steph works out the cost of her trip, including the return journey.  
She will use her car to drive 108 miles **each way**.  
She and her 3 friends will share the cost of fuel equally.  
Her car travels 12.5 miles per litre of fuel.  
Fuel costs 128.8p per litre.

Steph will also pay  
£3 for a return train ticket  
£30 for a match ticket  
£8 for food.

Work out the total amount Steph will pay for her trip.

**[6 marks]**

---

---

---

---

---

---

---

---

Answer £ \_\_\_\_\_

**Question 12 continues on the next page**

**Turn over ►**





**There are no questions printed on this page**

*Do not write  
outside the  
box*

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**











**There are no questions printed on this page**

*Do not write  
outside the  
box*

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**

**Copyright information**

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from [www.aqa.org.uk](http://www.aqa.org.uk).

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2020 AQA and its licensors. All rights reserved.



2 4



2 0 1 A 8 3 6 2 / 2

IB/M/Jan20/8362/2



# Book Your Functional Skills Exam Now!

Intech Centre is a leading training, careers and examination centre based in Islington, London, delivering Functional Skills Maths and English courses and exams for over 26 years.



**Book Now!**



## Book Your Exams & Courses

Qualification	Private Course	Online Exam	Exam in London
Functional Skills Maths Level 1 & 2	<a href="#">Enrol on Course</a>	<a href="#">Book Online Exam</a>	<a href="#">Book London Exam</a>
Functional Skills English Level 1 & 2	<a href="#">Enrol on Course</a>	<a href="#">Book Online Exam</a>	<a href="#">Book London Exam</a>

## Why Intech Centre?

- Over **26 years' experience** as a UK training and exam centre in London.
- **City & Guilds Functional Skills Maths and English exams**, Ofqual regulated and nationally recognised.
- Flexible **online learning** with 24/7 access plus online or centre-based exam options.
- Ideal if you still need GCSE Maths or English equivalent for university entry, teacher training, apprenticeships or employment.

CALL US FOR MORE INFORMATION:



**020 7354 5655**



[www.intechcentre.com](http://www.intechcentre.com)



[info@intechcentre.com](mailto:info@intechcentre.com)