• The n – use	narks for each question are shown in brackets. this as a guide to how much time to spend on each question.	
<ul> <li>This s</li> <li>Advice</li> </ul>	ign $[\mathbf{V}]$ shows where marks will be awarded for showing your checks.	
<ul><li>Read</li><li>Checl</li></ul>	each question carefully before you start to answer it. your answers if you have time at the end.	Turn over 🕨
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Please check the examination details	ails below	before ente	ring your can	didate information	
Candidate surname			Other name	S	
Pearson Edexcel Functional Skills	Centre	Number		Candidate Numbe	r
Sample assessment mate September 2019	erial fo	or first (	teaching	l	
Time: 1 hour 30 minutes		Paper R	eference <b>S</b>	AML2/01	
Mathematics Level 2 Section B (Calculator)					
<b>You must have:</b> Pen, calculator, HB pencil, eraser protractor, pair of compasses.	r, ruler g	raduated	in cm and	mm,	rks

## My signature confirms that I will not discuss the content of the test with anyone.

### Signature:\_

#### Instructions

- Use a **black** ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Sign the declaration.
- Answer all questions.
- Write your final answers in the boxes provided.
- Answer the questions in the spaces provided there may be more space than you need.
- You **must** show clearly how you get your answers in the spaces provided. Marks will be awarded for your working out.
- Check your working and your answers at each stage. •
- Diagrams are **not** accurately drawn, unless otherwise indicated.

### In

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Answer A	LL questions.	Write your a	nswers in th	ne spaces provi	ided.
ata set A has a medi	an value of 3.1				
ere is data set B.					
	14 –9	28 –	38 –13	-2	
(a) Write a statemer two sets of data.	nt to compare th	he median va	alues of the		
					(2)
(b) Show a chec	k of your answe	er for the med	dian of data	set B.	(1)
(b) Show a chec	k of your answe	er for the med	dian of data	set B.	(1)
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(b) Show a chec	k of your answe	er for the med	dian of data	set B.	(1)

2 Dan throws two fair dice.

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DO NOT WRITE IN THIS AREA

The numbers on dice A are	1	-2	3	-4	5	-6
The numbers on dice B are	-1	2	-3	4	-5	6

The table shows some total scores from throwing the two dice.

	Dice A						
	+	1	-2	3	-4	5	-6
	-1	0	-3	2	-5		-7
	2	3		5	-2	7	
Dice B	-3	-2	-5		-7		
	4	5	2		0		
	-5	-4		-2		0	-11
	6			9	2		0

(a) Complete the table.

Dan throws the two dice once.

(b) What is the probability that the total score is -11?

Dan throws the two dice again.

(c) What is the probability that the new total score is 0?

(1)

(1)

(1)

(Total for Question 2 is 3 marks)

**3** Last year Zack had two jobs.

Zack worked

- in an office for 12 months and earned £2600 per month
- at a gym for 39 weekends and earned £80 per weekend.

What fraction of his total income last year came from his work at the gym? Write the fraction in its simplest form.

(4)

## (Total for Question 3 is 4 marks)

### 4 Here is a prism.

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The cross section of the prism is a pentagon.



# Draw the front elevation of the prism on the grid. Use the scale 1:3



## (Total for Question 4 is 3 marks)

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**5** Olga has this sketch of the paths in a park.



She wants a cycle route that

- starts and ends at the entrance
- goes through point C at least once
- has a total length between 15 kilometres and 20 kilometres.

### 1 km = 0.6 miles.

Plan a suitable route. Work out the total distance of the route.

(5)



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Total distance

# (Total for Question 5 is 5 marks)

Here is a cube of side length 2.5 cm.	
Work out the surface area of this cube.	(3)
	cm <sup>2</sup>

	hanges the price	of one tablet from a	E389 to £330.98	
(a) Ha	s Megan changed	the price correctly	?	
✓ (b)	Use estimation to	o show a check of y	our answer.	

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8 A team of workers deliver identical fridges.

The team will use the average time to fully load an old lorry to predict the time to fully load a new lorry.

The table shows the times it took to fully load the old lorry with 24 fridges.



The diagram shows the space available for fridges in the new lorry. The space is in the shape of a cuboid.



Each fridge needs a rectangular floor space 1000 mm by 800 mm.

The team do not stack fridges.

They think it will take less than 90 minutes to fully load the new lorry.

Are they correct?

(6)

	l		
	$\square$		_
-			_

# (Total for Question 8 is 6 marks)



**10** The scatter diagram shows some information about 12 athletes who have run a race.



Here is the information for another athlete

• age 36, time 29 minutes.

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(a) Plot this information on the scatter diagram.

(1)

(b) Draw the line of best fit on the scatter diagram.

(1)

(c) Describe the relationship shown in this scatter diagram.

(1)

(Total for Question 10 is 3 marks)

(5)

**11** George will cover part of a floor with tiles. The part of the floor is in the shape of a triangle as shown. 305 cm 371.5 cm George buys tiles in packs. Each pack covers 1 m<sup>2</sup> and costs £39.95 The tiles can be cut and joined. George gets  $\frac{1}{3}$  off the cost of the packs of tiles. Work out the lowest cost of the tiles for George.

~~~~~			

# (Total for Question 11 is 5 marks)

£

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(3)

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12	Gabi wants to buy a flat. The cost of the flat is £175 000					
	The bank uses this formula to w	vork out the mortgage Ga	abi can get.			
		M = mortgage (£) A = annual income (£)				
	Gabi has an annual income of £ She will have to pay a deposit for The deposit is the difference be	34 000 or the flat. tween the cost of the fla	t and the mortgage.			
	(a) Work out the deposit Gab	i will have to pay.				
			£			

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(b) Work out the value of the investment at the end of 3 years.

(3)

£

(Total for Question 12 is 6 marks)

## TOTAL FOR SECTION B = 48 MARKS TOTAL FOR PAPER = 64 MARKS