

Write your name here (if you have one)

Surname (optional)	My name [2 marks]
Pearson Edexcel Level -1 GCSE (9–1)	<div style="display: flex; justify-content: space-between;"><div>Centre Number <div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div></div><div>Candidate Phone Password <div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div><div style="border: 1px solid black; width: 40px; height: 25px; display: inline-block;"></div></div></div>
<h1 style="margin: 0;">Mathematics</h1> <h2 style="margin: 10px 0 0 0;">Paper 52 (Non-Calculator, Non-Brain)</h2> <h3 style="margin: 10px 0 0 0;">Below Foundation Tier</h3>	
Tuesday 24 December 2019 – Midnight Time: 4 hours 20 minutes 6.9 seconds	Paper Reference 1MA1/1F
You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, death scythe. Tracing paper may be used if the examiner is a humanoid.	Total Marks <div style="border: 1px solid black; width: 100px; height: 40px; margin: 0 auto;"></div>

Instructions

- Use **black** inkling or ball-point pencil.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate phone password.
- Answer **some** questions.
- Answer the questions in the spaces provided
– *there may be no space, in which case you're screwed.*
- You must **show some working** if you really feel like it.
- Diagrams are **NOT** accurately drawn because we suck at it.
- **Calculators and brains may not be used.**



Information

- The total mark for this paper is not known
- The marks for **each** question are shown in brackets
– *use this as a guide as to how calculate how much time you've wasted so far.*

Advice

- Read each question carefully after you start to answer it.
- Keep an eye on the time. Don't forget to retrieve it before you leave.
- Try to forget the answer to every question.
- Check your answers if you have time, which you probably won't.

Turn over if you really want to ►

Answer SOME questions.

Write your questions in the spaces provided.

You must shout out all the stages in your working.

1 Whisper 6324 to the invigilator.

.....

(Total for Question 1 is 1 mark)

2 (a) Write the following numbers in order of size.
Start with the smallest number.

Population of USSR

Area of Vatican City in cm^2

Days until Brexit

.....

(1)

(b) Write the following numbers in order of size.
Start with the largest number.

5 5 5 5 5

.....

(1)

(Total for Question 2 is 2 marks)

3 Write a quote that describes the monstrous personality of Dr Jekyll.

.....

(Total for Question 3 is 1 mark)

4 Here is a list of four fractions.

fractions fractions fractions fractions

One of these fractions is **not** equivalent to $\frac{1}{4}$

Write down this fraction.

.....
(Total for Question 4 is 1 mark)

5 Write down the full Wikipedia entry for the number seven.

.....
.....
.....
(Total for Question 5 is 8 marks + 4 SPAG)

6 (a) Simplify $3 \times 4t$

.....
(1)

(b) Using this information, calculate how to simplify your own life.

.....
(0)
(Total for Question 6 is 1 mark)

7 Fig. 1 shows the Earth in space.

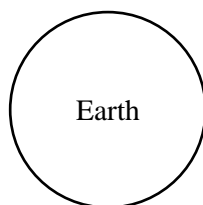


Fig. 1

(a) Is it flat? (Justify your answer.)

(2)

(b) Draw a tangent line – representing the meteor that killed the dinosaurs 65 million years ago – from a random point A to the Earth.

(2)

(c) Translate this sentence from Prehistoric Caveman to English. You will be marked according to your:

- accuracy of language
- clearness of communication

“Ooga, booga ooga gneu gneu gneurshk choong billa bing. Bish bash booga; oogo toongo lan swagga bagga doongo fonga. Ooga ooga “oogan” ooga? Gb gbe gnlok fo bacth bong bagga oogi.”

(8)

(Total for Question 7 is 12 marks)

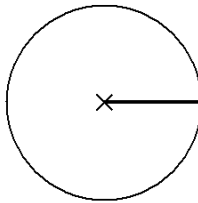
- 8 3 kg of meat costs £54
Nina buys 2 kg of the meat.

Work out how much Nina pays if she buys it from Costco.

£

(Total for Question 8 is 2 marks, you wholesale cheapskate)

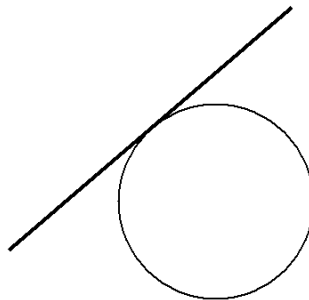
- 9 The centre of this circle is marked with a cross (×).



- (a) What shape is the cross?

.....
(1)

- (b) Write down the bank card details of the tangent line below. (His name is John.)



.....
(1)

(Total for Question 9 is 2 marks)

10 Tim and three friends go to Russia together for a week.

The 4 friends will share costs of “holiday” equally, like true Russian men. (люблю тебя.)

Here are costs of “holiday”.

1280 Soviet Ruble for danger plane trip. (Not insurance at all.)

640 Soviet Ruble for rickety train across Siberian wasteland.

220 Soviet Ruble per comrade for “re-education” in holiday camp.

(Normally it would funded by government but Tim has been naughty so we cannot.)

Work out how much Tim must to pay for his share of costs.

..... Soviet Ruble

(Total for Question 10 is 3 sickles)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

11 Write down an example to show that each of the following two statements is **not** correct.

(a) Your dad is always here for you.

.....
(1)

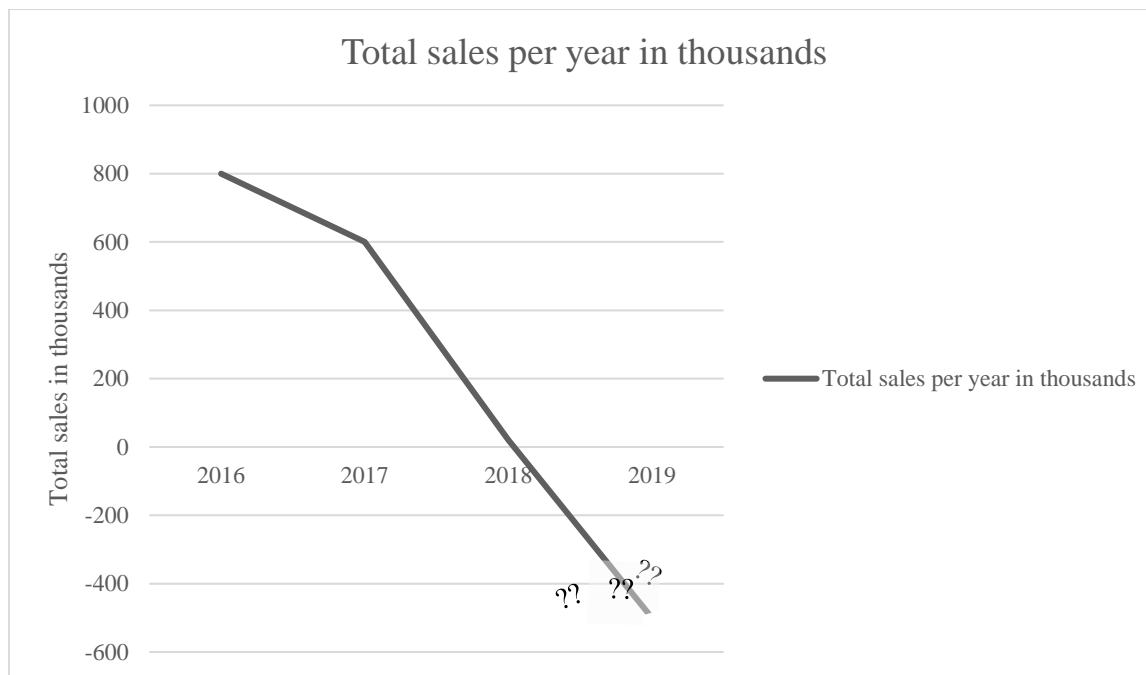
(b) Seriously though, where is my dad?

.....
(???)

(There's no total for Question 11 I actually need moral support)

12 A shop sells desktop computers, laptops and tablets.

Lately, their store has not been doing so well – here is a graph demonstrating total number of sales over the past few years.



- (a) In which year did the store not make any sales at all and instead broke the laws of physics?

.....
(1)

- (b) Work out the total number of items sold between 2016 and 2019. (Account for the negative sales (!) in 2019.)

.....
(3)

- (c) To what extent is this incident linked to the Great Depression of 1929?

.....

.....

.....

.....

.....

(8 + 4 SPAG)

Alex says,

“Boris Johnson can save this store.”

(d) Is Alex correct or is he a right-wing nationalist?

You must justify your answer.

(4)

(Total for Question 12 is 20 marks)

13 If you have 4 pencils and 7 apples, how many pancakes will fit on the roof?

[Hint: Aliens don't wear hats.]

(Total for Question 13 is 5cm)

14 Juan catches a fish and weighs it on a scale. However, he decides to take a siesta for 5 hours while weighing his fish, leaving it exposed. This unsuspecting cod is stolen by a passer-by, who takes it back home 4km away to cook for his Friday fish burrito. Juan, disgruntled by the lack of a fish on the scales, stands up with a force of 50N and walks a distance of 3km at a bearing of 231° at a speed of 2m/s. The passer-by, meanwhile, heats up the cod at 70°C for 4 hours, thus transferring thermal energy into the internal store of the fish. Juan continues to deplete his chemical store in order to perform work to reach the passer-by's house. (He is rather determined to retrieve his fish.)

Given that $g = 9.8\text{m/s}^2$, the spring constant $k = 4.6$ and the Specific Heat Capacity of the fish is $1.63\text{kJ/kg } ^\circ\text{C}$, should Juan be allowed across the border into America?

(Total for Question 14 is 10 marks)

15 Pull out the snack that you've been hiding in your pocket and begin to eat it.

How many calories are in the snack?
Just kidding. Hand it into the invigilator, you scumbag.

(Total for Question 15 is 0 marks)

16 Assume that $P_{x,y} = 4x + 3y$ and $G(f) = 8f + 3f^2$

(a) Work out the value of P_{nis} .

.....
(2)

(b) Expand P_{nis} until it is sufficiently long.

.....
(2)

(c) Using this retrieved P_{nis} , calculate how to insert it into $G(f)$.

(65)

(Total for Question 16 is 69 marks)

17 There are some chocolates in a box.

$\frac{1}{4}$ of the chocolates contain nuts.

The rest of the chocolates do not contain nuts.

Write down the ratio of the number of people who failed No Nut November to the number of people that succeeded.

(Total for Question 17 is 2 marks)

DO NOT WRITE IN THIS AREA

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