Write your name here

Surname	Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9 - 1)

Centre Number | | | | | |

Candidate Number | | | | |

Mathematics AO3

Specimen papers set 1
Silver Test 1

Grades 1-3

Time: 30–45 minutes

Paper Reference
1MA1

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need*.
- **Calculators must not be used in questions marked with as asterisk (*).**
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out** with your **answer clearly identified** at the **end of your solution**.

Information

- This gold test is aimed at students targeting grades 1-3.
- This test has 11 questions. The total mark for this paper is 30.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question*.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

1. A shop sells pens at different prices.
The cheapest pens in the shop cost 27p each.

Lottie buys 18 pens from the shop.

(*a*) If Lottie buys 18 of the cheapest pens, how much does Lottie pay?

£.....
(1)

Lottie pays with a £10 note.

(*b*) How much change should Lottie get?

£.....
(1)

Instead of buying the cheapest pens, Lottie buys 18 of the more expensive pens.
She still pays with a £10 note.

(*c*) Should Lottie get more change or less change?

.....

.....
(1)

(Total for Question 1 is 3 marks)

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2. Michelle and Wayne have saved a total of £458 for their holiday.
Wayne saved £72 more than Michelle.

(*a*) How much did they save without Wayne's extra £72?

£.....

(1)

(*b*) How much did Wayne save?

£.....

(1)

(Total for Question 2 is 2 marks)

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3. Jayne writes down the following

$$3.4 \times 5.3 = 180.2$$

Estimate the answer to 3.4×5.3.
Explain why Jayne's answer cannot be correct.

.....

.....

(Total for Question 3 is 1 mark)

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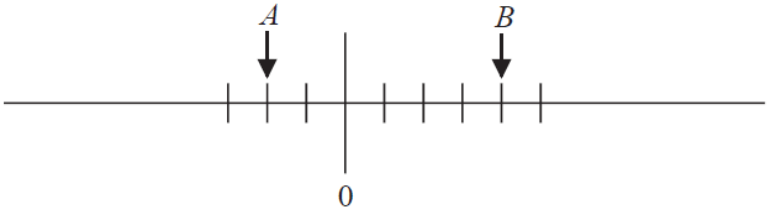
4. The two numbers, *A* and *B*, are shown on a scale.



The difference between *A* and *B* is 48.

(*a*) Work out the value of one interval on the scale.

.....

(1)

(*b*) Work out the value of *A* and the value of *B*.

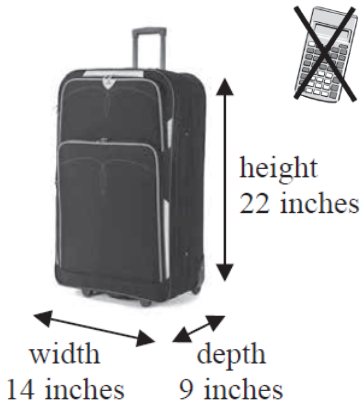
A =.....

B =.....

(2)

(Total for Question 4 is 3 marks)

***5.** An American airline has a maximum size for bags on its planes.
The diagram shows the maximum dimensions.



Chris has a bag.

It has
height 50 cm
width 40 cm
depth 20 cm

1 inch = 2.54 cm

(*a*) Convert the height of Chris's bag to inches.

..... inches

(*b*) Convert the width of Chris's bag to inches.

..... inches

(*c*) Convert the depth of Chris's bag to inches.

..... inches

(2)

(*d*) Can Chris take this bag on the plane? Explain your answer.

.....

.....

(1)

(Total for Question 5 is 3 marks)

6. In a shop, the normal price of a coat is £65.
The shop has a sale.

In week 1 of the sale, the price of the coat is reduced by 20%

(*a*) Find the price of the coat in week 1 of the sale.

£.....

(1)

In week 2 of the sale, the price of the coat is reduced by a further £10.

(*b*) Find the price of the coat in week 2 of the sale.

£.....

(1)

Maria has £40.

(*c*) Does Maria have enough money to buy the coat in week 2 of the sale?

.....

(1)

(Total for Question 6 is 3 marks)

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7. The length of a car is 3.6 metres.

(*a*) Convert 3.6 metres to centimetres.

..... cm

Karl makes a scale model of the car.
He uses a scale of 1 cm to 30 cm.

(*b*) Work out the length of the scale model of the car in centimetres.

..... cm

(Total for Question 7 is 2 marks)

8. Here are two numbers.

29 37

Nadia says both of these numbers can be written as the **sum** of two square numbers.

(*a*) Write down the first six square numbers.

.....

(1)

(*b*) Is Nadia correct?
If she is, write each of the numbers 29 and 37 as the sum of two square numbers.

.....

.....

(2)

(Total for Question 8 is 3 marks)

***9.** There are 500 passengers on a train.

$\frac{7}{20}$ of the passengers are men.

(*a*) How many passengers are men?

.....

(1)

40% of the passengers are women.

(*b*) How many passengers are women?

.....

(1)

The rest of the passengers are children.

(*c*) Work out the number of children on the train.

.....

(1)

(Total for Question 9 is 3 marks)

***10.** A shop sells milk in 1 pint bottles and in 2 pint bottles.

Each 1 pint bottle of milk costs 52p.
Each 2 pint bottle of milk costs 93p.

Martin has **no** milk.

He assumes that he uses, on average, $\frac{3}{4}$ of a pint of milk each day.

Martin wants to buy enough milk to last for 7 days.

(*a*) How many pints of milk does Martin need to buy for 7 days?
Round your answer to the appropriate number of whole pints.

.....

(2)

(*b*) Work out the smallest amount of money Martin needs to spend on milk.

£.....

(1)

Martin actually uses more than $\frac{3}{4}$ of a pint of milk each day.

(*c*) Explain how this might affect the amount of money he needs to spend on milk.
Does your answer depend on how **much** more than $\frac{3}{4}$ of a pint Martin uses each day?

.....

.....

.....

.....

(1)

(Total for Question 10 is 4 marks)

11. Boxes of chocolates cost £3.69 each.
A shop has an offer.

Boxes of chocolates

3 for the price of 2

(*a*) How much is 3 boxes of chocolates in the offer?

£.....

Ali has £50
He is going to get as many boxes of chocolates as possible.

(*b*) How many lots of 3 boxes of chocolates can Ali buy?

.....

(1)

(*c*) How much money does Ali have left over?

£.....

(*d*) How many boxes of chocolates can Ali buy with the money he has left over?

.....

(1)

(*e*) How many boxes of chocolates can Ali get in total?

.....

(1)

(Total for Question 11 is 3 marks)

TOTAL FOR PAPER IS 30 MARKS

Question	Origin	Question	Origin
1	2F qu.5	7	2F qu.12
2	2F qu.6	8	3F qu.5
3	3F qu.8	9*	1F qu.18
4	3F qu.9	10*	1F qu.19
5*	1F qu.10	11	3F qu.19
6	2F qu.11		

Specimen papers set 1 problem solving:			Gold Test Grades 1-3
Question	Working	Answer	Notes
1 (a)	27 × 18 = 486	5.14	M1 for 1000 – "27 × 18"
(b)			A1 cao
(c)		"less change"	C1 for "less change" oe
2 (a)	458 – 72 = 386	265	P1 for start to the process
(b)	386 ÷ 2 = 193		A1
3		Statement	C1 for a full explanation
4 (a)		–16, 32	P1 for 48 ÷ 6
(b)			P1 for a complete process to find either A or B
			A1
5 (a)-(c)		No (supported)	P1 starts the process by converting one dimension A1 converts at least one measurement
(d)			C1 conclusion eg No, since the 40 cm > 14 inches
6 (a)		for 'no' with supporting evidence	P1 for correct process to find price in Week 1, eg. 65 × 0.8 (= 52)
(b)			P1 for process to find the price in week 2, eg. "52" – 10 (= 42)
(c)			C1 for 'no' with supporting evidence

Specimen papers set 1 problem solving:			Gold Test Grades 1-3
Question	**Working**	**Answer**	**Notes**
7 (a)-(b)		12	P1 for complete process including unit conversion, eg. 3.6 × 100 ÷ 30 A1 cao
8 (a) (b)		Yes with evidence	C1 for writing down at least two squares numbers P1 for adding square numbers A1 cao with supporting evidence
9 (a) (b) (c)		125	P1 for process to find 7/20 of 500 (=175) or 7/20 + 4/10 (=3/4) P1 for process to find 40% of 500 (=200) or ¼ × 500 A1 cao
10 (a) (b) (c)		 2.79 pay more	P1 begins to work with figures eg finding 7× ¾ (=5.25) P1 works with integers eg 5.25 as 6 pints and 3 × 2 pints A1 cao C1 deduces he may have to pay more [if he uses more than 0.857 pints a day]
11 (a)-(b) (c)-(d) (e)	3.69 × 2 = 7.38	19	P1 for 7.38 repeatedly added at least 6 times OR 50 ÷ 7.38 P1 for 6 × 7.38 + 3.69 A1 19 boxes