

Write your name here

Surname

Other names

Rodillian Academy
Level 1 / Level 2
GCSE (9–1)

Centre Number

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Candidate Number

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Y8 Mathematics

Practice Examination 1

To be completed for the end of the holidays

Paper Reference

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

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.*
- You must **show all your working**.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may not be used.**



Information

- The total mark for this paper is 58
- 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.

Turn over ►

Q1 Write down the value of the underlined digit. 2,665,715

.....
(1)

Q2 What is 85% of 900?

.....
(1)

Q3 Solve $7x + 9 = 44$

.....
(2)

Q4 Below is a set of data. Calculate the mean average of the data.

12 14 28 24 41 34 13 35 24 44

.....
(2)

Q5 There are red, yellow and blue counters in a bag.

The chance of pulling a red counter from the bag is 0.3.

There is an equal chance of pulling a yellow or a blue counter from the bag.

What is the chance of pulling a yellow counter from the bag?

Red	Yellow	Blue
0.3		

.....
(2)

Q6 Write 144 as a product of its prime factors.

.....
(2)

Q7 Round 836,321 to two significant figures.

.....
(1)

Q8 Simplify $y^5 \times y^4 \times y^{-3}$

.....
(1)

Q9 $\frac{5}{8} \div \frac{3}{12} =$

.....
(1)

Q10 Expand and simplify $(7x + 4)(12x - 15)$

.....
(2)

Q11 Factorise $35y^2 + 14xy - 21yz$

.....

(1)

Q12 Solve $15x + 8 = 22x - 20$

.....

(2)

Q13 Billy and Ben split some money in the proportion 12:7.
Billy got £360.
How much did they have altogether?

.....

(3)

Q14 In a shop, the weight is directly proportional to the cost.

When the weight is 3kg, the cost is £13.

What is the weight when the cost is £18?

.....

(3)

Q15 Increase 68 by 30% and then decrease that amount by 30%.

.....

(3)

Q16 Look at the sequence below.

29 35 41 47 53

a What are the next three terms in the sequence?

.....

(1)

b Find an expression for the n th term.

.....

(2)

c What is the 78th term in the sequence?

.....

(1)

d Is the number 15,943 in the sequence? You must show how you know to get the marks

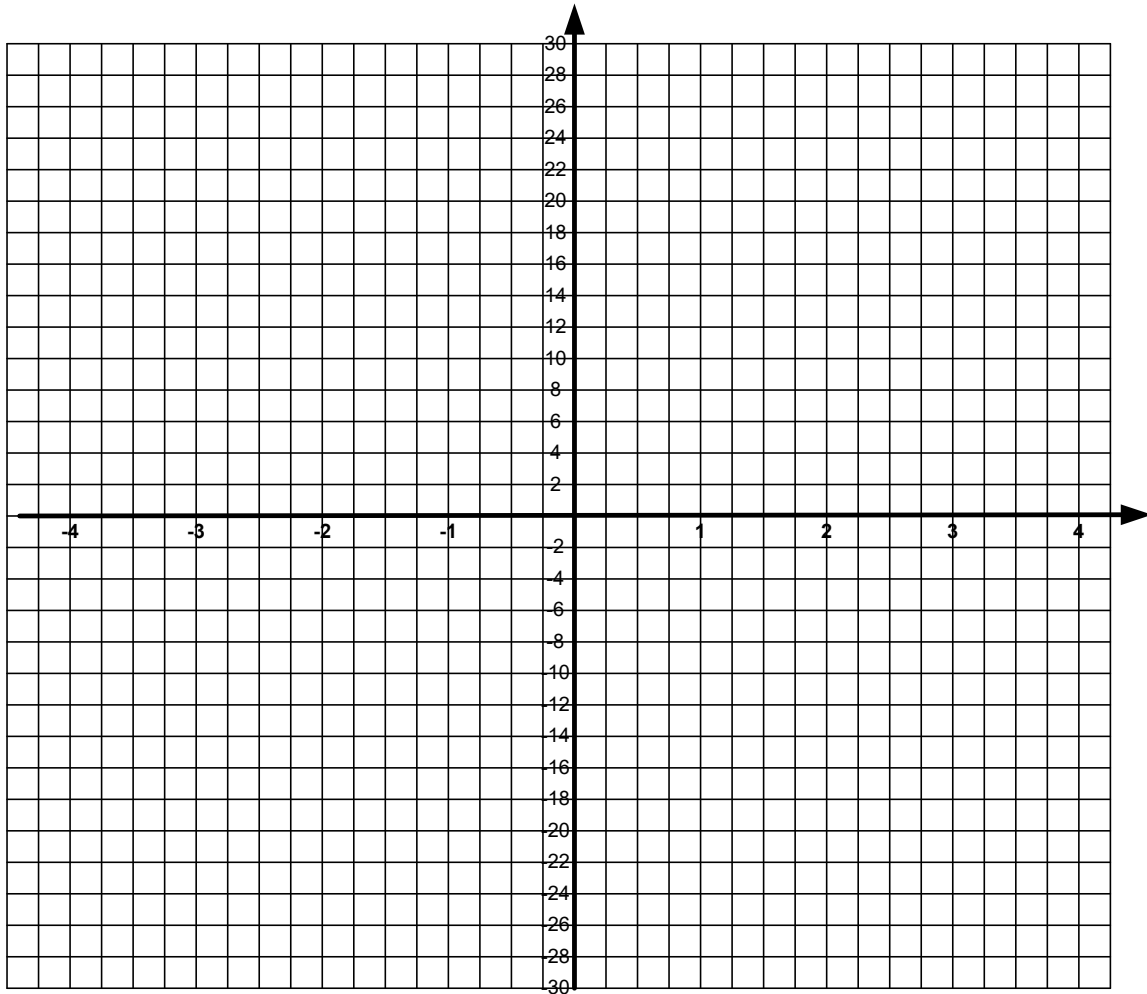
.....

(2)

Q17 a Fill the table below and hence plot the graph $y = 7x + 1$ for $-4 \leq x \leq 4$.

x	-4	-3	-2	-1	0	1	2	3	4
y									

(2)



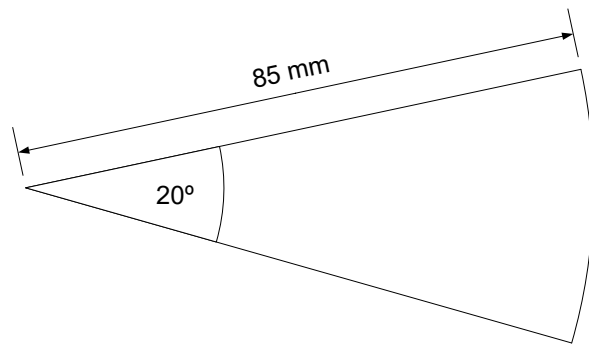
(2)

b In the graph $2y = 35 - 8x$, what is the gradient and the intercept?

Gradient= Intercept=

(2)

Q18 Below is a sector.



a Calculate the area of the sector.

Give your answer as an exact answer.

.....

(3)

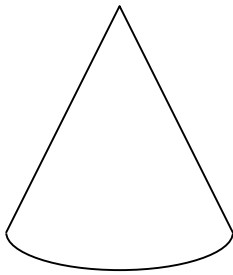
b Calculate the perimeter of the sector.

Give your answer as an exact answer.

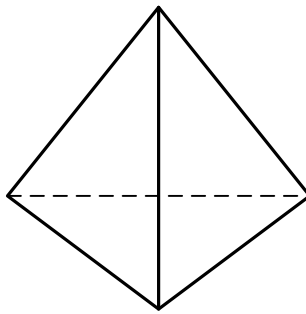
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(5)

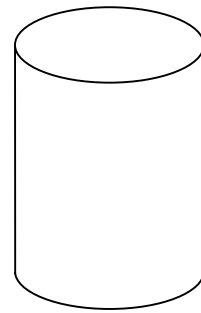
Q19 Name the shapes below.



.....



.....



.....

(3)

Q20 Erin collected data on the number of cars parked on her street. He wanted to use it to suggest to the council that there should be a car park built.

63	42	22	66	55	34	37	31	54	27	42	21
26	49	29	8	9	3	13	13	17	28	19	12

a Draw an ordered Stem and Leaf diagram of this data.

(3)

b What is the median average number of cars parked on Erin's street?

.....

(1)

Q21 Draw the loci of the points which are equidistant to AB and AC. Do not rub out any construction lines.

