Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel Functional Skills

Centre Number	Candidate Number

Practice Set 3

Time: 25 minutes | Paper Reference **PRACL2/N03**

Mathematics

Level 2
Section A (Non–Calculator)

You must have:
Pen, HB pencil, eraser, ruler graduated in cm and mm, protractor, pair of compasses. Tracing paper may be used.

Total Marks

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

Signature: _____

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.
- 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 answers at each stage.
- Diagrams are **not** accurately drawn, unless otherwise indicated.
- **Calculators may not be used.**
- Take the value of π to be 3.14

Information

- The total mark for this section is 16.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- This sign ☑ shows where marks will be awarded for showing your checks.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶

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Please note that these worked solutions have neither been provided nor approved by Pearson Education and may not necessarily constitute the only possible solutions. Please refer to the original mark schemes for full guidance.

Any writing in blue indicates what must be written in order to answer the questions and get the marks. The worked solutions have been designed to show the smallest amount of work which needs to be done to answer the question.

Anything written in green in a cloud doesn't have to be written in the exam.

Anything written in orange in a rectangle doesn't have to be written in the exam and is there to show what should be put into a calculator or measured using a ruler or protractor.

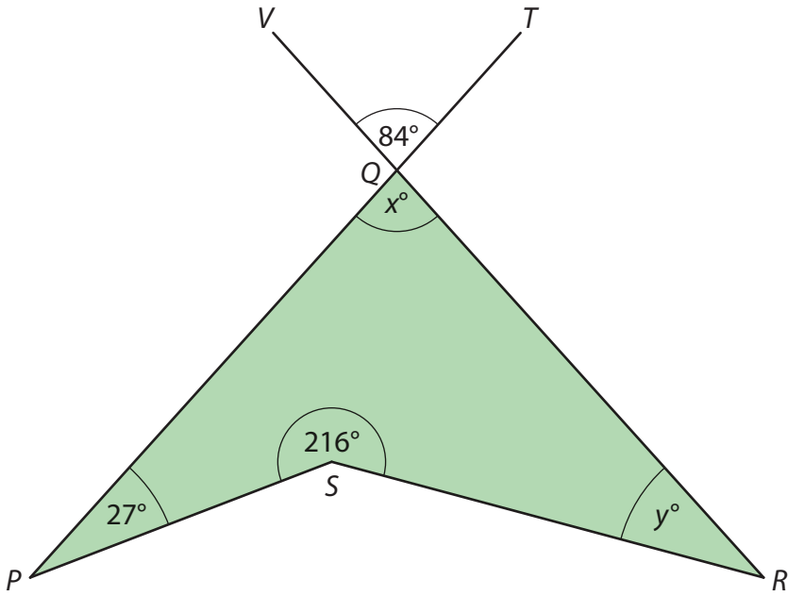
If you find any mistakes or have any requests or suggestions, please send an email to curtis@cgmaths.co.uk

.CG Maths.

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

1 *PQRS* is a quadrilateral.



PQT is a straight line.

RQV is a straight line.

(a) Write down the value of *x*.

(1)

x is vertically opposite to angle VQT, the 84° angle, so is equal to it

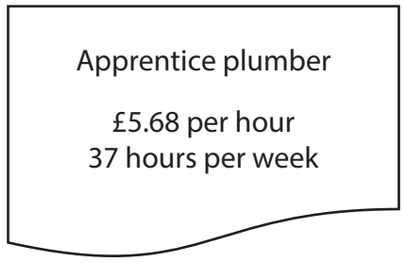
(b) Work out the value of *y*.

(2)

The shape highlighted in green is a four sided shape so therefore there are 360 degrees in total in it. Subtracting the other angles leave angle y

(Total for Question 1 is 3 marks)

2 Prasha sees this advert for an apprenticeship.



Prasha will be paid for 52 weeks of the year.

She estimates that she will have an annual salary of £11 500

Use estimation to check if Prasha's estimate is sensible.
You **must** show your working.

(3)

Round each of the amounts to 1 significant figure. The first figure in £5.68 is in the units column so it should be rounded to the nearest whole number. The first figures in 37 and 52 are in the tens column so they should be rounded to the nearest ten. Multiplying the wage per hour by the number of hours per week works out the amount earned per week. Multiplying this by the number of weeks in the year works out the annual salary. Using the rounded amounts makes it an estimate and makes the calculation easier

(Total for Question 2 is 3 marks)

3

(a) Write 8% as a decimal.

(1)

To convert a percentage to a decimal it needs to be divided by 100. Moving the decimal point twice to the left does this

(b) Work out $\sqrt{64} \times (12 - 7)$

(1)

The order of operations, BIDMAS, needs to be followed so the brackets are resolved first then the indices then the multiplication

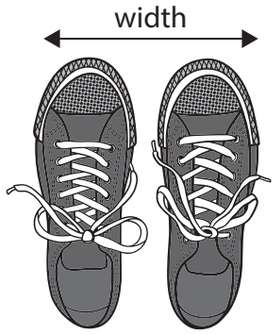
(c) Work out $\frac{4}{5} - \frac{3}{8}$

(2)

The denominators need to be the same. Find a common multiple of 5 and 8. Multiplying the denominator of 4/5 by something gives the common multiple so the numerator also needs to be multiplied by the same something. Multiplying the denominator of 3/8 by something else gives the common multiple so the numerator also needs to be multiplied by the same something else. Then the numerators of both fractions can be subtracted from each other and the denominator stays the same

(Total for Question 3 is 4 marks)

4 Uditi wants to make a shoe tray.
The tray will hold rows of shoes.
She wants each row to hold 6 pairs of shoes.



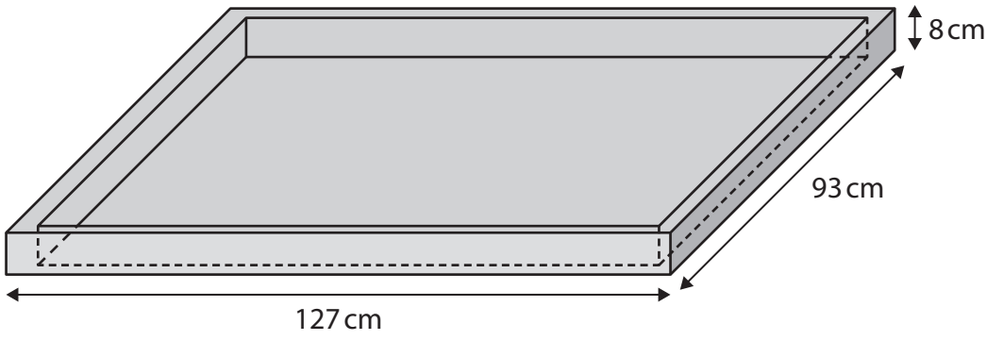
Uditi measures the width of 5 pairs of her shoes.
Here are the results in cm.

18.2 19.7 19.4 18.6 18.9

To find the total width of 6 pairs of shoes Uditi will multiply the median width of these pairs of shoes by 6

The width of the base of the tray will need to be 10% more than the total width of 6 pairs of shoes and have an extra 3 cm at each end of the tray for a frame.

Uditi draws this diagram of the largest shoe tray she can make with the wood she has.



Uditi thinks this tray can hold 6 pairs of her shoes in a row.

Is she correct?
Show why you think this.

(6)

Listing the widths of the pairs of shoes in order then crossing off from both ends until there is one in the middle works out the median. Multiplying the median by 6 works out the total width of 6 pairs of shoes. Dividing this by 10 works out 10% of this. Adding this on to the total width of 6 pairs of shoes increases it by 10%. There needs to be an extra 3cm as each end and as there are two ends this means another 6cm needs to be added. Compare the result to the longest length in the diagram, the 127cm, to decide if the width of the base could be enough

(Total for Question 4 is 6 marks)

TOTAL FOR SECTION A IS 16 MARKS