Please check the examination details below before entering your candidate information


Practice exam paper for first teaching September 2019


## You must have:

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

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

## Signature:

$\qquad$

## 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 your answers at each stage.
- Diagrams are not accurately drawn, unless otherwise indicated.
- Calculators may not be used.
- Take the value of $\pi$ 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 $\checkmark$ 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.

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## SECTION A

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

1 Bill is a builder.
On Monday he made mortar mix.
He used 24 kg of sand and 5 kg of cement.
On Tuesday Bill will make the same type of mortar mix.
He will use 36 kg of sand.

How much cement does he need to make the same type of mortar mix?
(a) Write 2.71828 correct to 3 decimal places.


Here is a formula.

$$
P=3 T^{2}
$$

(b) Work out the value of $P$ when $T=10$

3 Lizzie buys 3 clocks for a total cost of $£ 50$ at a car boot sale.
She sells 2 of the clocks for $£ 22$ each and the other clock for $£ 20$
Lizzie thinks she has made a profit of over 30\% of the cost of the clocks.

Is Lizzie correct?
Show why you think this.

4 Usha is a local councillor.
She wants to write about a new housing development.
The diagram shows the space for the new development.


Usha thinks that the area of the development will be greater than the total area of 50 football pitches.

Usha knows

- a football pitch is rectangular 100 m by 50 m
- 1 mile $=1600 \mathrm{~m}$.
(a) Will the area of the development be greater than the total area of 50 football pitches?
(b) Use reverse calculations to show a check of your answer.



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