## **Cambridge Secondary 1 Progression Test**

Teacher instructions



approx. 15 minutes



## **Mathematics Paper 3**

Stage 8

## **READ THESE INSTRUCTIONS FIRST**

- 1. Students should only have pens and answer sheet. They are not allowed to have any other mathematical equipment or paper for working out.
- 2. The teacher will need a watch or clock that tells the time accurately in seconds.
- 3. The teacher should read each question twice slowly and then wait the correct number of seconds (5 seconds for questions 1–7, 10 seconds for questions 8–12 and 15 seconds for questions 13–20) before moving on to the next question.
- 4. Students are not allowed to ask questions during the test.



Read the text in italics to the students:

Listen carefully to these instructions. You will not have the opportunity to ask questions during the test.

You will be asked 20 questions. On your sheet there is an answer box for each question. You should work out your answers in your head. Do not try to write down your calculations because this will take up too much time. For some of the questions, important information is already written down for you on the sheet.

Each question will be read aloud twice. You will then have time to work out your answer. If you don't know the answer to the question, leave it and wait for the next question. If you want to change your answer, put a cross through your first answer and write your new answer nearby.

For the first group of questions you will have 5 seconds to work out each answer. For the second group of questions you will have 10 seconds to work out each answer. For the third group of questions you will have 15 seconds to work out each answer. Each question is worth the same amount.

Do you have any questions about the test?

(Answer any questions the students may have.)

Write your name on the front of the answer sheet.

(Begin the test.)

Now we are ready to start the test.

For this first group of questions, you will have 5 seconds to work out each answer and write it down.

- **1** Write this statement in mathematical notation. Five is the cube root of one hundred and twenty five.
- Look at the words on your answer sheet.Put a ring around the word that completes the sentence.
- 3 Look at the linear sequence on your answer sheet. Write down the two missing terms.
- **4** What are the two square roots of one hundred and forty four?
- **5** Add two point three and one point zero four.
- **6** The probability of choosing a red bead from a bag is three eighths. What is the probability of choosing a bead that is not red?

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**7** Divide two point seven by nine.

For this group of questions, you will have 10 seconds to work out each answer and write it down.

8 Look at the four congruent triangles.Mark the angle in each of the other three triangles that corresponds to the marked angle.

9 Three bread-rolls cost sixty cents.
What is the cost of four bread-rolls?

10 Look at the graph showing water depth.
At what time is the water depth two point five metres?

11 Look at the three values on your answer sheet. Put them in order starting with the smallest.

**12** Look at the expression on your answer sheet. Expand the brackets.

For this group of questions, you will have 15 seconds to work out each answer and write it down.

- 13 Find twenty five percent of two hundred and sixty.
- **14** Approximately, how many miles is sixteen kilometres?
- 15 What is the median of the four numbers written on your answer sheet?
- Look at the triangle on your answer paper.Enlarge the triangle by a scale factor of two, using point C as the centre of enlargement.
- 17 Look at the diagram on your answer sheet. Work out the value of a.
- 18 Look at the picture on your answer sheet.
  How many glasses of water are needed to fill the jug?
- **19** Find the *n*th term for the sequence on your answer sheet.
- 20 Look at the travel graph.
  How much later than Radha does Eta arrive back home?

Now put down your pen. The test is finished

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