Cambridge Assessment International Education

Cambridge Lower Secondary Progression Test

Mathematics paper 3 teacher instructions

Stage 9

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approx. 15 minutes

READ THESE INSTRUCTIONS FIRST

1. Learners 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 1–5, 10 seconds for questions 6–14 and 15 seconds for questions 15–20) before moving on to the next question.

4. Learners are not allowed to ask questions during the test.

Read the text in italics to the learners:

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 one mark.

Do you have any questions about the test?

(Answer any questions the learners 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 Find fifteen percent of sixty.

2 Look at your answer sheet.
Draw a ring around the name of the regular polygon that does not tessellate.

3 Write down the inverse of the function x maps to x plus three.

4 Look at the scatter graph on your answer sheet.
Write down the type of correlation shown.

5 Work out seven subtract negative fifteen.

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

6 Find the next term of the sequence on your answer sheet.

7 Look at your answer sheet.
Triangle *A* is enlarged to triangle *B*.
Draw a ring around the cross which is the correct centre of enlargement.

8 Look at the table on your answer sheet.
It shows the destinations of two hundred flights from an airport in one day.
Find the relative frequency of a flight to Asia.

9 Aiko drives x kilometres to work.
Blessy drives twice as far as Aiko.
In total they drive sixty kilometres to work.
Find the value of x.

10 Divide one half by one third.

11 Look at the formula on your answer sheet.
Find the value of p when t equals negative six.

12 Look at the graph on your answer sheet.
Complete the equation of this straight line.

13 Look at the calculation on your answer sheet.
Use this to find seventy-six point eight divided by twenty-four.

14 Look at the inequality on your answer sheet.
Represent the solution for x on the number line.

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

15 A builder makes a concrete mix using cement and sand in the ratio one to five.
He needs to make two point four cubic metres of concrete mix.
How many cubic metres of cement are needed?

16 Look at the diagram on your answer sheet.
It shows a regular hexagon and a square.
Find angle *v*.

17 Mike draws a pie chart to show the proportion of adults and children at a party.
There are twelve adults and forty-eight children.
Work out the size of the angle for the adults' sector.

18 Look at the cylinder on your answer sheet.
It has a radius of ten centimetres and a height of six centimetres.
Draw a ring around the best estimate for the volume of the cylinder.

19 Look at your answer sheet.
Calculate this value.

20 A tank has a volume of one point two five metres cubed.
Work out this volume in centimetres cubed.

Now put down your pen. The test is finished.