

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 down the value of twenty squared.
- 2 Write two fifths as a decimal.
- 3 Look at the circle on your answer sheet.
What is the name given to the line AB?
- 4 Multiply nought point nought six by eight.
- 5 How many millilitres are there in seven litres?
- 6 Write seventy percent as a fraction.
- 7 Simplify a times a times a .

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

- 8** Jo has twenty four counters.
She gives one sixth of her counters to Sara.
How many counters does she give to Sara?
- 9** Look at the calculation shown on your answer sheet.
Work out thirty one times twenty nine.
- 10** Two angles in a triangle are eighty degrees and thirty degrees.
What is the size of the third angle?
- 11** Two cans of drink cost ninety cents.
How much do six cans of this drink cost?
Give your answer in cents.
- 12** Look at the graph on your answer sheet.
Estimate the temperature at nine thirty am.

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

- 13** The n th term of a sequence is two n plus one.
What is the second term in the sequence?
- 14** Look at the diagram on your answer sheet.
What are the coordinates of the image of point A after it is reflected in the line x equals three?
- 15** Work out the value of three a plus two b when a equals four and b equals minus one.
- 16** Look at the triangle drawn on your answer sheet.
Work out the area of this triangle.
- 17** There are twelve girls and fifteen boys in a class.
Their teacher selects a student at random.
What is the probability that the teacher selects a girl?
- 18** A rectangle is enlarged.
After the enlargement it has length fifteen centimetres and width nine centimetres.
The width of the rectangle before the enlargement was three centimetres.
What was the length of the rectangle before the enlargement?
- 19** Two fair coins are thrown.
One is gold and one is silver.
Each coin can land on either a head or a tail.
In how many different ways can the coins land?

- 20 y equals three x minus two.
What is the value of x when y equals ten?

Now put down your pen. The test is finished.

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