



**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

**GAUTENG DEPARTMENT OF EDUCATION  
PROVINCIAL EXAMINATION  
NOVEMBER 2018  
GRADE 6**

**MATHEMATICS**

**DISTRICT:** \_\_\_\_\_

**SCHOOL NAME:** \_\_\_\_\_

**CLASS (e.g. 6A):** \_\_\_\_\_

**NAME & SURNAME:** \_\_\_\_\_

**TIME:** 1½ hours

**MARKS:** 75

**14 pages**

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**INSTRUCTIONS**

1. Read all the instructions carefully.
2. Question 1 consists of 15 multiple-choice questions. Circle the letter of the correct answer.
3. Answer questions 2 to 15 in the spaces or frames provided on the paper.
4. All calculations must be shown on the question paper and may NOT be done on separate rough paper.
5. Write neatly and legibly.
6. The use of a calculator is NOT allowed.

## SECTION A

## MULTIPLE-CHOICE QUESTIONS

1. Circle the letter of the correct answer.

1.1 What is the value of the underlined digit in 18 660 045?

- A 600 000
- B 60 000
- C 6
- D 660 000

(1)

1.2 What is the third multiple of 16?

- A 16
- B 4
- C 48
- D 64

(1)

1.3 Which one of the numbers between 50 and 60 is a prime number?

- A 51
- B 53
- C 55
- D 57

(1)

1.4 Which fraction is equivalent to  $\frac{5}{7}$ ?

- A  $\frac{7}{5}$
- B  $\frac{25}{49}$
- C  $\frac{10}{14}$
- D  $\frac{7}{9}$

(1)

1.5 What is  $14,02 \times 100$ ?

- A 1 400,2
- B 0,1402
- C 140,2
- D 1 402

(1)

1.6 What is  $\frac{39}{30}$  written in decimal form?

- A 39,30
- B 30,39
- C 1,3
- D 1,39

(1)

1.7 The shoe sizes of learners in a grade 6 class are given below.

5 ; 6 ; 5 ; 7 ; 5 ; 4 ; 8 ; 7 ; 5 ; 6 ; 5

What is the mode of the shoe sizes?

- A 4
- B 5
- C 7
- D 8

(1)

1.8 Mr Smith recorded the marks for a Mathematics test out of 25 as follows:

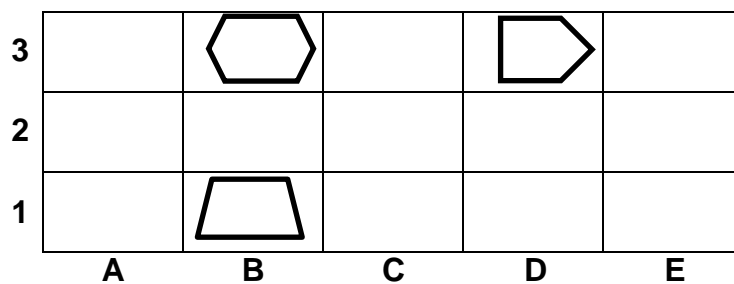
17 ; 22 ; 14 ; 9 ; 22 ; 25 ; 18 ; 22 ; 25 ; 18 ; 6 ; 19 ; 23

What is the median mark?

- A 19
- B 25
- C 18
- D 22

(1)

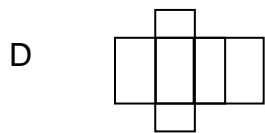
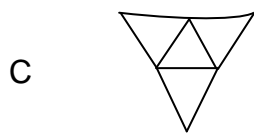
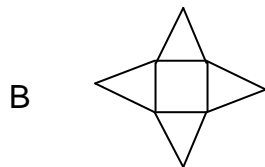
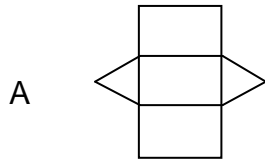
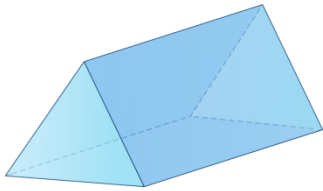
1.9 What are the coordinates of the block with a pentagon?



- A B3
- B B1
- C D3
- D D1

(1)

1.10 Which net can be folded to make the shape below?



(1)

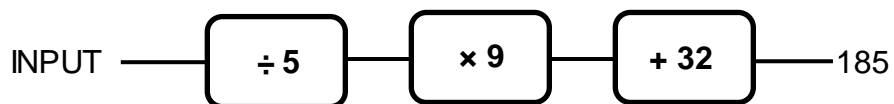
1.11 What is the next number in this pattern?

7 ; 20 ; 10 ; 19 ; 13 ; 18 ; 16 ; 17 ; ...

- A 16
- B 18
- C 30
- D 19

(1)

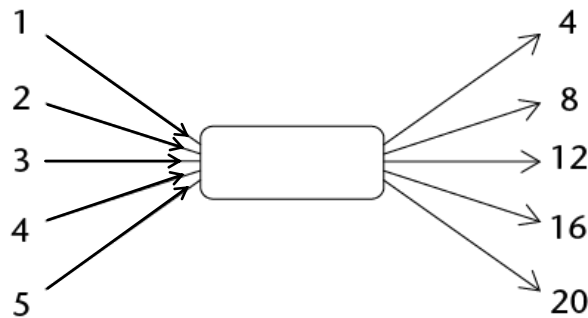
1.12 Which input value is correct for the given output number?



- A 85
- B 365
- C 333
- D 390

(1)

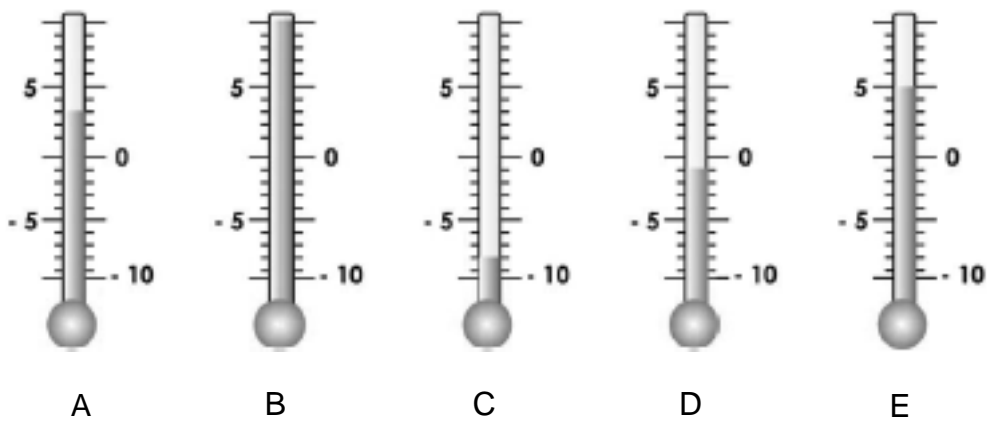
1.13 What is the missing rule in this flow diagram?



- A  $\times 4$
- B  $+ 1$
- C  $+ 3$
- D  $+ 4$

(1)

1.14 Which statement about the following thermometers is true?



- A Thermometer D is displaying the lowest temperature.
- B The temperature on thermometer A is 2 degrees hotter than thermometer E.
- C The temperature on thermometer E is 2 degrees hotter than thermometer A.
- D Thermometer E is displaying the highest temperature.

1.15 Puleng checks her heart rate and counts 12 beats in 10 seconds. What is her heart rate in beats per minute?

- A 120 beats per minute
- B 12 beats per minute
- C 72 beats per minute
- D 60 beats per minute

(1)  
[15]

2. Answer the questions in the spaces provided.

2.1 Rounding-off

2.1.1 Round-off 8 643 to the nearest 100.

\_\_\_\_\_ (1)

2.1.2 Round-off 184 501 to the nearest 1 000.

\_\_\_\_\_ (1)

2.2 Circle the number sentence that has the higher value from each pair.

2.2.1 

$14 \times 1 + 0$	$14 \times 0 + 1$
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 (1)

2.2.2 

$15 + 4 \times 5$	$(15 + 4) \times 5$
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 (1)

\_\_\_\_\_

2.3 What is the smallest number that is a multiple of 3 and 7?

\_\_\_\_\_ (1)

2.4 What is the largest number that is a factor of both 24 and 30?

\_\_\_\_\_ (1)  
**[6]**

3. Complete the table by filling in the missing equivalent fraction, decimal or percentage.

Fraction	Decimal	Percentage
	0,75	
$\frac{3}{10}$		30%

(3)

4. Calculate the answers for Questions 4.1 – 4.8. Use any method. Show your steps.

4.1  $18\,293\,476 + 1\,029\,531$

(2)

4.2  $56\,500\,879 - 12\,439\,421$

(2)

4.3  $4\,536 \times 23$

(3)

4.4  $7\,965 \div 25$

(3)



4.5  $4\frac{1}{5} + 3\frac{3}{10}$

(3)

4.6  $6\frac{5}{7} - 4\frac{4}{7}$

(2)

4.7 What is  $\frac{3}{4}$  of 224?

(2)

4.8  $2,07 + 2,4$

(2)  
[19]

5. Complete the table below by filling in the empty blocks.

3D Object	Number of vertices	Number of edges	Number of faces
Pentagonal prism		15	
	5	8	5

(3)

6. Answer the questions in the spaces provided.

6.1 What type of angle is shown below?



\_\_\_\_\_

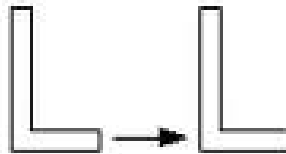
(1)

6.2 Circle the shape below that has only 2 lines of symmetry.



(1)

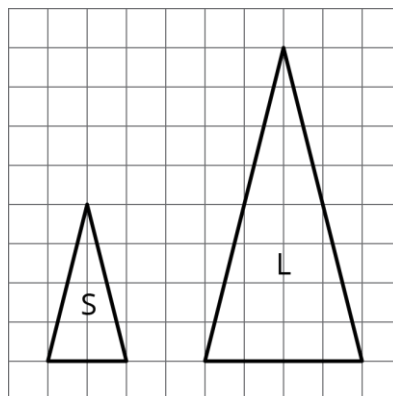
6.3 Identify the transformation taking place in the picture below.



\_\_\_\_\_

(1)

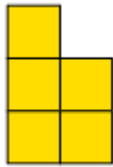
6.4 Triangle L is an enlargement of triangle S. What scale factor was used for the enlargement?



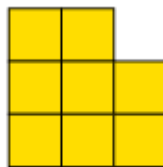
\_\_\_\_\_

(1)  
[4]

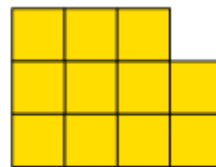
7. Answer the questions based on the patterns below.



Pattern 1



Pattern 2



Pattern 3

7.1 Complete the table below by filling in the empty blocks.

<b>Pattern number</b>	1	2	3	4	
<b>Number of blocks</b>	5	8	11		26

(2)

7.2 How many blocks will there be in pattern 31?

\_\_\_\_\_

(1)

7.3 Which pattern will have 47 blocks?

\_\_\_\_\_

(1)  
[4]

8. Answer the following questions in the spaces provided.

8.1 Choose the appropriate unit of measurement from the list given to complete the statements below.

kilograms ; kilolitres ; grams ; centimetres ; litres ; kilometres

8.1.1 The distance from Pretoria to Durban is approximately 700

\_\_\_\_\_

(1)

8.1.2 The average amount of water that a family uses in 1 month is

approximately 28 \_\_\_\_\_

(1)

8.2 Convert the following to the given unit of measurement.

8.2.1 13,2 litres = \_\_\_\_\_ millilitres.

(1)

8.2.2 19 centimetres = \_\_\_\_\_ metres.

(1)

8.3 Matthew buys a 2-litre bottle of water and drinks 205 millilitres. How much water is left?

(2)  
[6]

9. Answer the questions based on the digital clock shown below.



9.1 Write the time shown in 12-hour digital time. Remember to indicate a.m. or p.m.

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(1)

9.2 If a movie is 85 minutes long and it starts at 20:15, at what time will the movie end?

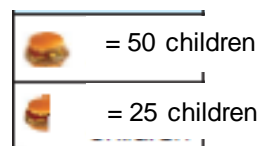
(2)  
[3]

10. Use the pictograph below to complete the table on the favourite foods of learners:

Hamburger



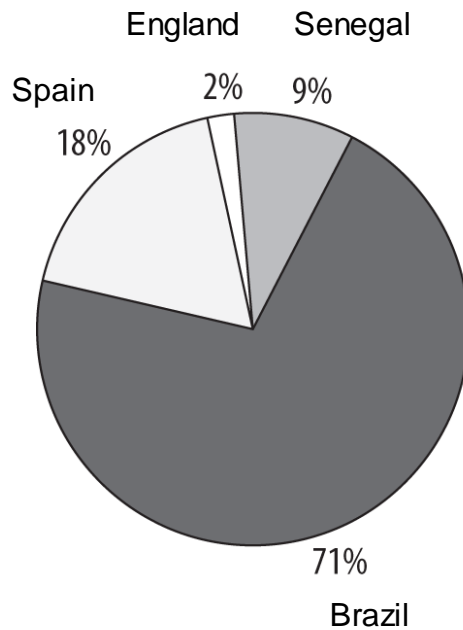
Hot dog



Type of food	Number of children
Hamburger	
Hot Dog	

(2)

11. At a school, 200 learners were asked who they thought would win the 2018 FIFA World Cup. Their responses are shown on the pie chart below as percentages. Answer the questions that follow.



- 11.1 How many of the learners who were interviewed thought that Senegal would win the world cup?

\_\_\_\_\_

(1)

- 11.2 Which country did the most learners think would win the world cup?

\_\_\_\_\_

(1)  
[2]

12. Martin bought 2 kg of meat for R220. Mpho paid R315 for 3 kg of the same kind of meat. Who found the better deal based on cost per kilogram?

(2)

13. Thando divided 1 572 by a certain number, and got an answer of 104, remainder 12. By what number did she divide 1 572?

(2)

14. Yusuf puts 13 red balls, 8 green balls and 9 yellow balls into a bag. What is the chance of him randomly selecting a green ball from the bag? Write your answer as a fraction.

(2)

15. A square has an area of 36 square centimetres. What is the perimeter of the square?

(2)

**TOTAL: 75**