GAUTENG DEPARTMENT OF EDUCATION

PROVINCIAL EXAMINATION

JUNE 2018

GRADE 6

MATHEMATICS

DISTRICT_____

SCHOOL NAME _____

CLASS (e.g. 6A) _____

NAME AND SURNAME _____

TIME: 1½ hours

MARKS: 75

14 pages

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INSTRUCTIONS

1.   Read ALL the instructions carefully.

2.   Question 1 consists of 10 multiple-choice questions. Circle the letter of the correct answer.

3.   Answer questions 2 to 19 in the spaces or frames provided.

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 17 499 rounded off to the nearest 1 000?

         A   17 500

         B   18 000

         C   17 000

         D   18 499   (1)

     1.2   Which number sentence is equivalent to 498 + 317?

         A   500 + 317 + 2

         B   500 + 300 +17

         C   500 + 317 – 2

         D   500 – 317 + 2   (1)

     1.3   Three hundred thousand and two can be written in number form as:

         A   3 002

         B   3 000 002

         C   300 200

         D   300 002   (1)

     1.4   Which option shows the correct mode and median for the data shown below?

         12 ; 10 ; 17 ; 15 ; 9 ; 10 ; 21 ; 15 ; 18 ; 10 ; 10 ; 12 ; 13

         A   Median = 10 and Mode = 12

         B   Median = 12 and Mode = 10

         C   Median = 21 and Mode = 10

         D   Median = 21 and Mode = 12   (1)

1.5   Which of the following numbers is a prime number?

A   1
B   2
C   9
D   21   (1)

1.6   What is the missing number in this number sentence?

$97 - 11 = \boxed{} - 8$

A   94

B   86

C   105

D   89   (1)

1.7   Which of the following numbers is closest to 2?

A   1,9

B   2,11

C   2,1

D   2,05   (1)

1.8   What is 26,39 × 10?

A   2,639

B   2 639

C   26,390

D   263,9   (1)

1.9   How many sides does a quadrilateral have?

A   4
B   5
C   6
D   8   (1)

1.10   What is the time being shown on the digital clock below?
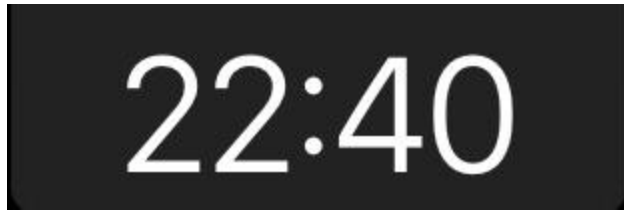
A   20 minutes to 11 in the evening
B   40 minutes past 10 in the morning
C   20 minutes to 11 in the morning
D   40 minutes to 11 in the evening   (1)

[10]

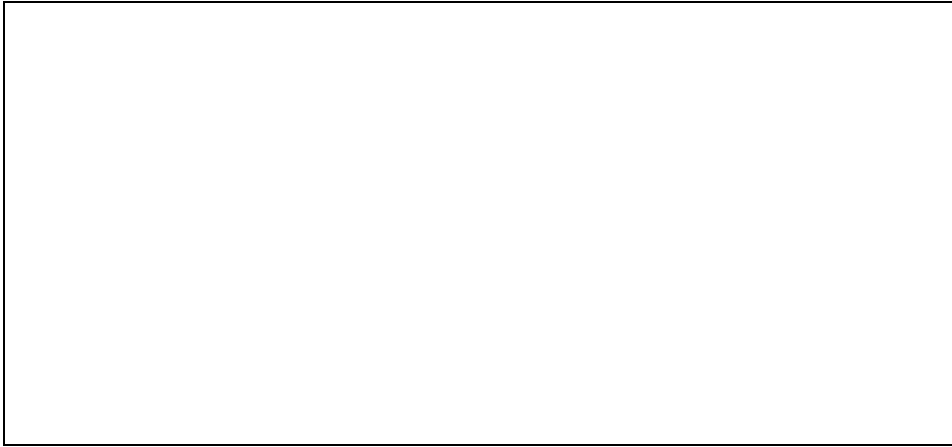2   Calculate the answers for questions 2.1 - 2.10. Use any method. Show your
       steps.

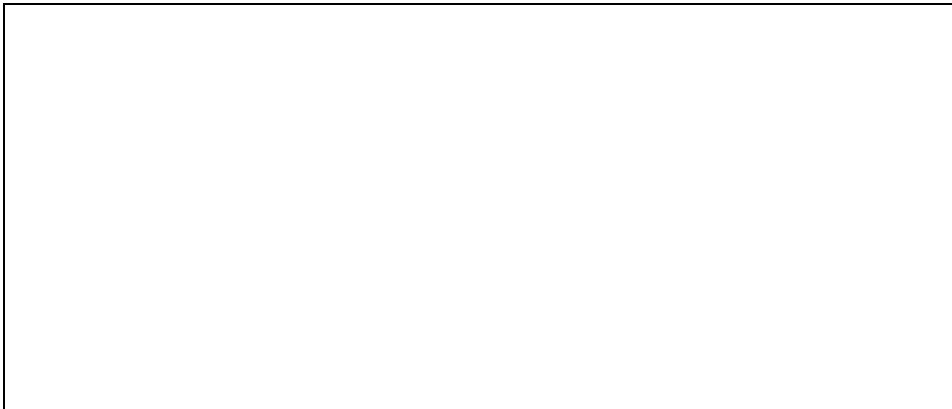2.1   487 356 + 256 103

                                                                        (2)

2.2   512 785 – 285 421

                                                                        (2)

2.3   3 214 x 51

(3)

2.4   7 365 ÷ 24

(3)

2.5 $\frac{4}{15}$ + $\frac{3}{5}$

(2)

2.6 $3\frac{1}{4} - 1\frac{3}{4}$

(2)

2.7 What is $\frac{7}{10}$ of 450?

(2)

2.8 34,25 + 4,5

(2)

2.9 Write 0,95 as a percentage.

(1)

2.10 15 + (4 + 6) × 10

(2)

[21]

3   Fill in >;< or =.

3.1 $\frac{2}{3}$ ☐ $\frac{7}{9}$ (1)

3.2   0,25   ☐ $\frac{1}{4}$ (1)

3.3   30%   ☐   0,03   (1)

[3]

4   Answer the questions about symmetry.

4.1   How many lines of symmetry does the following shape have?
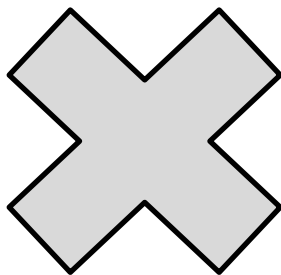
(1)

_____

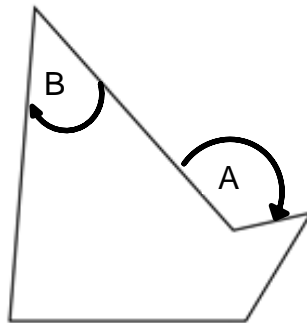4.2   Circle the shape that has rotational symmetry.
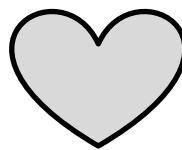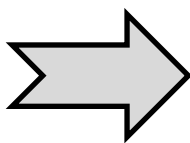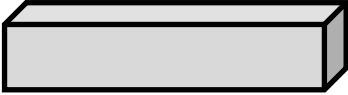
(1)
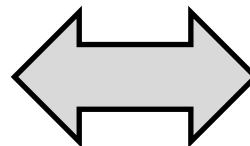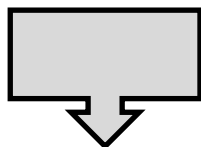
[2]

5   Complete the following table based on the picture of the 3-D object provided:

		[3]
Name of 3-D object		
Number of faces		
Number of vertices		

6   Study the shape below:

6.1   Name the 2-D shape.

_____   (1)

6.2   What type of angle is being shown at "A" and "B"?

A_____   (2)

B_____

        [3]

7   7.1   Give 1 difference between a rectangle and a parallelogram.

        (1)

_____

        7.2   Give 1 similarity between a rectangle and a parallelogram.

        (1)

_____

        [2]

8   Convert the following measurements:

    8.1   2 000 millilitres = _____ litres   (1)

    8.2   14,2 Kilolitres = _____ litres   (1)

    8.3 $5\frac{3}{4}$ Hours = _____ minutes   (1)

                                                                               [3]

9   Answer the questions involving measurement.

    9.1   Container A holds 2,8 ℓ of water. Container B holds 1 500 mℓ of water.

        How much more water does container A hold compared to B?

        (2)

    9.2   How many more years are there in 34 decades, than in 3 centuries?

        (2)

        [4]

10   Answer the following questions based on the table, showing the time in various African countries at a particular moment:

Country	Time at a particular moment
South Africa	09:30
Sudan	10:30
Ghana	07:30

10.1   By how many hours is South Africa ahead of Ghana?

(1)

_____

10.2   What will the time be in Ghana when it is 9 pm in Sudan?

(1)

_____

10.3   In which of these countries will the date change first?

(1)

_____

[3]

11   What number should be in the place of "A" in the following sequence?

85 ; ….. ; 69 ; 61 ; ….. ; ….. ; ….. ; 37 ; ….. ; A

[1]

A = _____

12   Answer the questions about the pattern below:

Shape number	1	2	3	4	5	6	7	8	9
Shape	○	□	△	△	○	□	△	△	○

12.1   Draw the next shape in this pattern.

(1)

_____

12.2   What will shape number 43 be in this pattern?

(1)

_____

[2]

P.T.O.

13 Answer the questions about the pattern below.

| House #1 | House #2 | House #3 | House #4 |
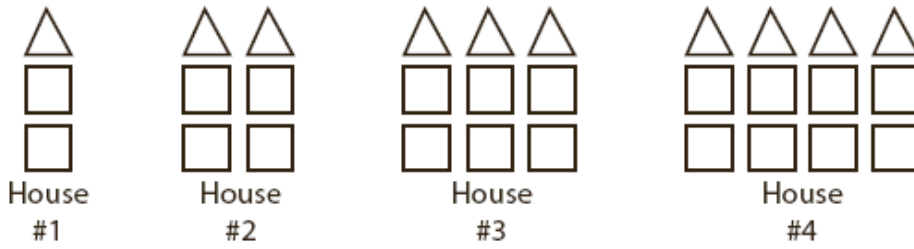
13.1 How many triangles will be used to build house number 5?

(1)

_____

13.2 How many squares will be needed to build house number 18?

(1)

_____

13.3 Which house number will be built using 6 triangles and 12 squares?

(1)

_____

[3]

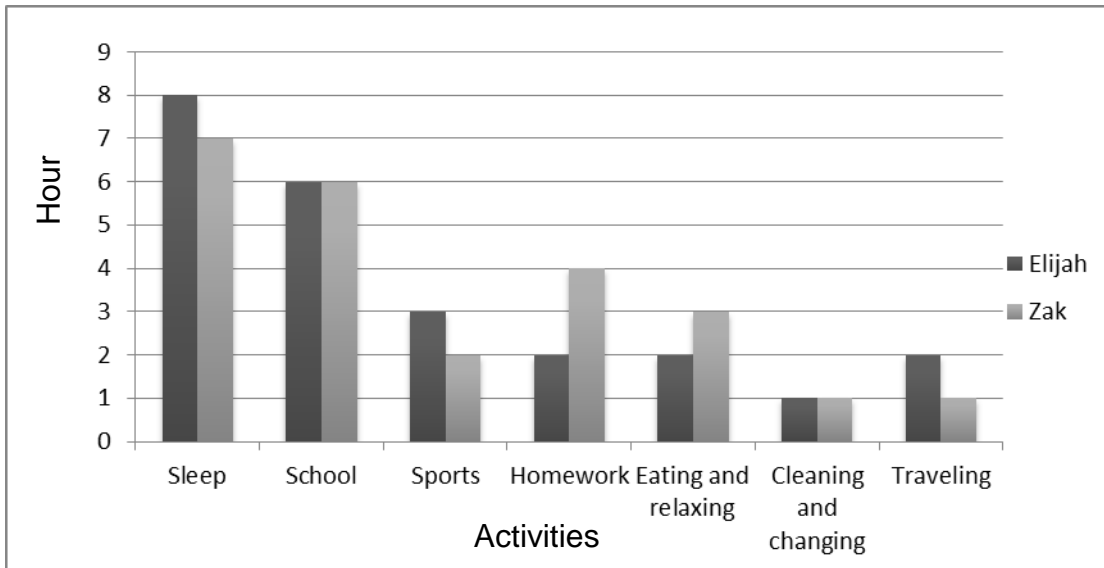14 Complete the tally table below, by filling in the empty blocks.

Counting the number of Maths periods per week in Grades 6 and 7		
Grade	Tally	Frequency
6	~~HHT~~ ~~HHT~~ II	
7		9

[2]

15 Answer the questions about the graph below:

How Elijah and Zak spend their time

15.1 Who spends more time traveling?

(1)

_____
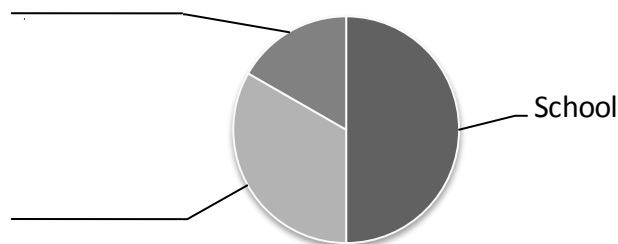
15.2 How much time does Elijah spend altogether on sleep, school and homework?

(1)

_____

15.3 Zak draws a pie chart to compare the time he spends on school, homework and sports. Label the chart by filling in the correct activity.
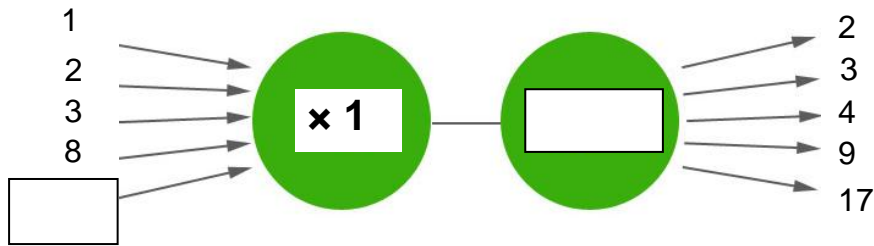
Time spent by Zak

(2)

School

[4]

16 Complete the flow diagram by filling in the missing number and operation

1
2
3
8

× 1

2
3
4
9
17

[2]

17 A car is moving at a speed of 120 km per hour. The driver looks at his phone for 30 seconds to read a message. How far did the car travel while the driver was reading the message?

[2]

18 Tasmiya starts a business of selling ice lollies at school. It costs her R15 per box to buy the ice lollies. She sells the ice lollies for R5,50 each. There are 8 ice lollies in each box. If she sells all the ice lollies, how much profit will she make on each box? (Profit is the amount that is left after deducting your expenses.)

[3]

19 The sum of 2 whole numbers is 54. The difference between these 2 numbers is 12. What are the 2 numbers?

[2]

TOTAL: 75

END