ANNUAL NATIONAL ASSESSMENT 2014
GRADE 6 MATHEMATICS
TEST

MARKS: 75

TIME: 90 minutes

PROVINCE ____________________________________________

DISTRICT ____________________________________________

SCHOOL NAME _______________________________________

EMIS NUMBER (9 digits) ____________

CLASS (e.g. 6A) ______________________________________

SURNAME ___________________________________________

NAME ______________________________________________

GENDER (✔) BOY ____________ GIRL ____________

DATE OF BIRTH

C C Y Y M M D D

This test consists of 12 pages, excluding the cover page.
Instructions to the learner

1. Read all the instructions carefully.

2. Question 1 consists of 10 multiple-choice questions. You must circle the letter of the correct answer.

3. Answer Questions 2 to 28 in the spaces or frames provided.

4. All working must be shown on the question paper and must not be done on rough paper.

5. The test is out of 75 marks.

6. The test duration is 90 minutes.

7. The teacher will lead you through the practice question before you start the test.

8. The use of a calculator is not allowed.

Practice question

Circle the letter of the correct answer.

\[ 8 \times 6 = \phantom{0} \]

A. 48  
B. 84  
C. 72  
D. 60

You have done it correctly if you circled A above.

NB.
- You will answer more questions like the one you have just completed.
- Do your best to answer each question even if you are not sure of the answer.
- Write down the answer that you think is the best and move to the next question.
- When you have answered all the questions on a page, move to the next page.
- Look only at your own work.

The test starts on the next page.
Circle the letter of the correct answer.

1.1 What is the value of the underlined digit in 249,15?
   A 5
   B 0,5
   C 50
   D 0,05

1.2 What is the next prime number?
   3, 5, 7, ______
   A 9
   B 11
   C 8
   D 15

1.3 Fill in the missing number in 6 + 3 + 5 = ____ + 5.
   A 9
   B 11
   C 8
   D 15

1.4 Which number is not a factor of 96?
   A 32
   B 16
   C 48
   D 36

1.5 What are the missing numbers in the number sequence?
   0,9 ; 0,7 ; 0,5 ; _____ ; ____.
   A 0,4 ; 0,3
   B 0,03 ; 0,1
   C 0,3 ; 0,01
   D 0,3 ; 0,1
1.6 In which number sequence is the rule 
(input number + 1) x 2 = output number used?

A  3 ; 7 ; 9 ; 11 ; 13
B  4 ; 10 ; 22 ; 46 ; 94
C  6 ; 9 ; 12 ; 15 ; 18
D  5 ; 8 ; 11 ; 14 ; 17

1.7 How many lines of symmetry can be drawn on the shape below?

A  1
B  3
C  5
D  2

1.8 Which sketch represents the side view of the 3-D object?

A
B
C
D

Grade 6 Mathematics Test  3
1.9 What is the median of the given set of numbers?

3  5  4  4  5  6  9  8  4

A  8
B  5
C  3
D  4

(1)

1.10 The boiling point of pure water is ...

A  37 °C
B  0 °C
C  98 °C
D  100 °C

(1) [10]

2 Complete:

7 342 651 = (7 000 000) + (3 × 100 000) + (______________) + 2 000 + 651

[1]

3 Round off 59 673 to the nearest 10 000.

_________________________

[1]

4 Calculate the answers for QUESTIONS 4.1 to 4.8.

4.1  42 152 + 28 945 + 76 361

(2)
4.2  
\[ 87546 - 43968 \]  

(2)

4.3  
\[ 3107 \times 35 \]  

(3)

4.4  
\[ 7140 \div 15 \]  

(3)

4.5  
\[ \frac{3}{8} + 2\frac{1}{8} \]  

(2)
4.6 \[ \frac{2}{5} \text{ of } 300 \]

4.7 \[ \frac{5}{5} - 2 \frac{1}{5} \]

4.8 \[ 59.3 - 25.8 \]

5 Complete: \( (14 \div 2) + (51 - 48) = \) \[ \text{[1]} \]

6 Re-arrange the numbers from the smallest to the biggest.

4,5 , 4,3 , 4,01 , 4,8

\[ \text{[1]} \]
7 Write down the multiples of 7 between 21 and 56.

8 If there are 8 sweets in a packet, how many packets can be filled with 947 sweets?

9 Complete: If $336 \div 14 = 24$, then $24 \times 14 = \underline{\hspace{2cm}}$

10 Match each of the three numbers given below with a number in the above frame.

10.1 $\frac{3}{4} = \underline{\hspace{2cm}}$ (1)

10.2 $50\% = \underline{\hspace{2cm}}$ (1)

10.3 $0,25 = \underline{\hspace{2cm}}$ (1)

11 Write down the number which is half-way between the two given numbers on the number line.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>260</td>
<td></td>
<td>25300</td>
</tr>
</tbody>
</table>

_________
12. Zonga received R240 for his labour. He received 12 times as much as Peter. How much did Peter get?

13. Fill in the missing number:  \( 8 \times 3 \div _____ = 1 \)

14. Look at the input and output numbers and complete the table.

<table>
<thead>
<tr>
<th>Input numbers</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output numbers</td>
<td>5</td>
<td>8</td>
<td>11</td>
<td>14</td>
<td>44</td>
</tr>
</tbody>
</table>

15. Complete the flow diagram below.

15.1

\[
\begin{array}{c}
5 \\
\times 3 \\
+ 2 \\
11 \\
17 \\
23
\end{array}
\]

15.2

16. How many matches will there be in the next figure if the diagram pattern is continued?

17. Name the different kinds of angles that are indicated by the arrows below.

17.1    

17.2    

17.1    

17.2    

1 [1]

1 [2]

1 [1]

1 [1]

Grade 6 Mathematics Test  8
18 Name the THREE different 2-D shapes in the diagram.

18.1 ________________ (1)

18.2 ________________ (1)

18.3 ________________ (1)

19 Study the parallelogram and rectangle and complete the sentences below.

19.1 The ____________ sides of a rectangle and parallelogram are equal in length. (1)

19.2 The parallelogram and rectangle each has ____________ pairs of parallel sides. (1)

20 Complete the table.

<table>
<thead>
<tr>
<th>Pentagonal prism</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of vertices</td>
<td></td>
</tr>
<tr>
<td>Number of edges</td>
<td></td>
</tr>
<tr>
<td>Number of faces</td>
<td></td>
</tr>
</tbody>
</table>

[3]

21 Mr Mololo’s car uses 9,5 litres of petrol to drive to work. He found a shorter route where the car uses only 8,7 litres of petrol. How many litres of petrol does he save? [2]
22. Study the clock faces showing the time in Rome and Tokyo. Rome and Tokyo are in different time zones.

<table>
<thead>
<tr>
<th>Rome</th>
<th>Tokyo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in the morning (a.m.)</td>
<td>Time in afternoon (p.m.)</td>
</tr>
</tbody>
</table>

22.1 Calculate the time difference between Rome and Tokyo.

__________________________  (1)

22.2 If it is 17:00 in Tokyo, what time will it be in Rome?

__________________________  (1)  [2]

23. Convert the number of millilitres indicated on the jug to litres. ____________  [1]

24. Below are the results in a school’s final shot-put challenge.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles</td>
<td>3.95 m</td>
</tr>
<tr>
<td>Zola</td>
<td>429 cm</td>
</tr>
<tr>
<td>Conrad</td>
<td>4.08 m</td>
</tr>
<tr>
<td>Jabu</td>
<td>387 cm</td>
</tr>
</tbody>
</table>

Who threw the shot-put the furthest? ____________  [1]
25. Use the kilogram scale below to answer the questions.

25.1 What is the mass indicated on the scale? ________________ (1)

25.2 Convert the above mass to grams. ___________ (1)

26. This pie chart shows how 100 marbles were shared amongst a group of children.

26.1 Who has the same number of marbles? ________________________________ (1)

26.2 Who received 20 marbles? ________________________ (1)

26.3 How many marbles do Alice and Thandi have together? ____ (1)

26.4 What percentage of the marbles did Pete get? ____________ (2)

26.5 What fraction of the marbles did Thandi get? ____________ (1)
27. What is the mode of the given set of test marks?
   6  7  5  3  7  9  5  8  7  ________  [1]

28. What is the value of $A$ in the fourth figure?  
   $A = _____$  

[1]

TOTAL: 75