National Foundation Phase Maths Olympiad - Grade3

By:

The Association for Mathematics Education of South Africa - Kwa-Zulu Natal

National Foundation Phase Maths Olympiad - Grade3

By:
The Association for Mathematics Education of South Africa - Kwa-Zulu Natal

Online:
< http://cnx.org/content/col11231/1.1/ >

C O N N E X I O N S

Rice University, Houston, Texas

This selection and arrangement of content as a collection is copyrighted by The Association for Mathematics Education of South Africa - Kwa-Zulu Natal. It is licensed under the Creative Commons Attribution 3.0 license (http://creativecommons.org/licenses/by/3.0/).
Collection structure revised: September 22, 2010
PDF generated: October 29, 2012
For copyright and attribution information for the modules contained in this collection, see p. 26.

Table of Contents

1 National Foundation Phase Maths Olympiad - Answer sheet template 1
2 National Foundation Phase Maths Olympiad - Grade three - final round - 2006 3
3 National Foundation Phase Maths Olympiad - Grade three - final round- 2007 9
4 National Foundation Phase Maths Olympiad - Grade three - pilot paper 15
5 National Foundation Phase Maths Olympiad - Grade three - round 1 - 2007 21
Attributions 26

Chapter 1

National Foundation Phase Maths Olympiad - Answer sheet template[1]

1.1 INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

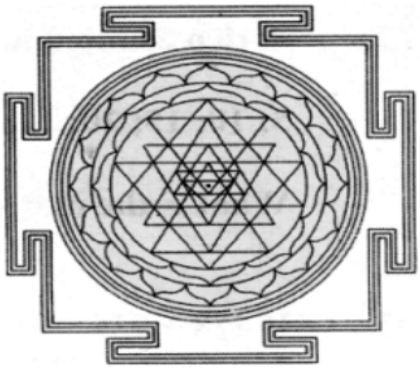

Figure 1.1

ANSWER SHEET
NAME OF LEARNER:_____
GRADE:_____
Circle the correct answer after doing your working.

[1] This content is available online at <http://cnx.org/content/m35678/1.1/>.

1		A	B	C
2		A	B	C
3		A	B	C
4		A	B	C
5		A	B	C
6		A	B	C
7		A	B	C
8		A	B	C
9		A	B	C
10		A	B	C
11		A	B	C
12		A	B	C
13		A	B	C
14		A	B	C
15		A	B	C

Table 1.1

MARKS: Numbers 1-10: 10 x 1 = 10
Numbers 11-15 : 5 x 2 = 10 (TOTAL: 20)

Chapter 2

National Foundation Phase Maths Olympiad - Grade three - final round - 2006[1]

2.1 INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

Figure 2.1

[1] This content is available online at <http://cnx.org/content/m35671/1.1/>.

2.2 GRADE THREE – FINAL ROUND PAPER: 2006 QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES
MARKS: 20
NAME OF LEARNER:_____
NAME OF SCHOOL:_____

2.3 INSTRUCTIONS TO LEARNERS:

1. You are expected to answer 15 questions.
2. These are multiple choice questions. Circle the correct answer.
3. Use blank pages for working. Circle the answer after you have done the working.
4. You are not allowed to use the calculator.
5. Read the question carefully before answering. Don't rush.
6. Your teacher will read the question to you.
7. First 10 questions – 1 mark each.
8. Questions 11-20: 2 marks each.

ENJOY THE OLYMPIAD

2.4 Test Questions:

2.4.1 Exercise 1

What is the 12^{th} number of this sequence?
5 ; 9; 13 ; 17 ; . . .

2.4.2 Exercise 2

Virginia counted in 3's as follows:
3; 6; 9; 12; . . .
She stopped at the 51^{st} number.What number did she count last?

2.4.3 Exercise 3

Find the value of Δ:

$$\Delta + \Delta + \Delta - O = 24 + \Delta - O \tag{2.1}$$

2.4.4 Exercise 4

Each letter in the following subtraction problem represents a digit. What is the value of B?

$$\begin{array}{r} A\ A \\ -\ B\ 8 \\ \hline 2\ 8 \end{array}$$

Figure 2.2

2.4.5 Exercise 5

Mandy said that $\frac{3}{4}$ of the total number of health biscuits is 33. What is the total number of health biscuits?

2.4.6 Exercise 6

Matchsticks are used to make the following blocks:

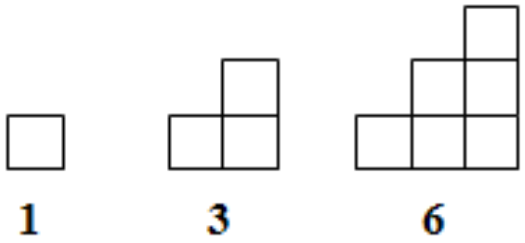

Figure 2.3

How many blocks are there in the 9^{th} figure?

2.4.7 Exercise 7

How many blocks are there in this stack?

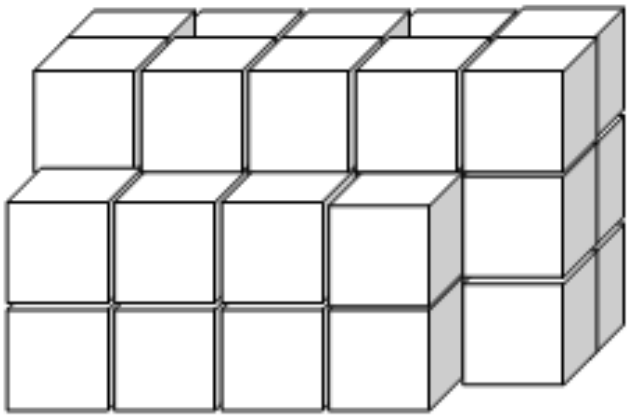

Figure 2.4

2.4.8 Exercise 8

4 different counting numbers (starting from 1) were added to give 56 . What is the largest possible number that could have been added ?

2.4.9 Exercise 9

Ben makes 3 paper jets in 10 minutes. Victoria makes 4 paper jets in 20 minutes. If both work together and at the same rate then how many paper jets could be made in 1 hour?

2.4.10 Exercise 10

Guess the number I stand for.
* I am a 3 digit number.
* My unit's digit is 3 more than my hundred's digit.
* My ten's digit is the same as my unit's digit.
* The sum of my digits is 18.

2.4.11 Exercise 11

Try to work out what * is doing to the 2 numbers.
3 * 1 = 5
4 * 4 = 4
3 * 3 = 3
6 * 2 = 10
Now find the answer to :
9 * 3

2.4.12 Exercise 12

In the following game the rule is double the number in the left block and add to the number in the right block to give the number in the block above it.

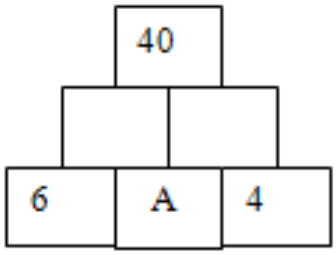

Figure 2.5

Find the number in block A.

2.4.13 Exercise 13

Given the following information, who is the tallest?
Al is shorter than Sipho.
Jerry is taller than Frank.
Frank is taller than Al.

2.4.14 Exercise 14

Calculate:
$100 - 98 + 96 - 94 + 92 - 90 + \ldots + 4 - 2$.

2.4.15 Exercise 15

There are 4 envelopes.
* Envelope 2 has R6 more than envelope 1.
* Envelope 3 has R6 more than envelope 2.
* Envelope 4 has R6 more than envelope 3.
There is a total of R196 in the four envelopes.
Determine the amount of money in envelope 1.

Chapter 3

National Foundation Phase Maths Olympiad - Grade three - final round- 2007[1]

3.1 INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

Figure 3.1

3.2 GRADE THREE – FINAL ROUND PAPER: 2007 QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES

[1] This content is available online at <http://cnx.org/content/m35677/1.1/>.

MARKS: 20
NAME OF LEARNER:_____
NAME OF SCHOOL:_____

3.3 INSTRUCTIONS TO LEARNERS:

1. You are expected to answer 15 questions.
2. Use the answer booklet for your answers.
3. Use the space provided for your working.
4. You are not allowed to use the calculator.
5. Read the question carefully before answering. Don't rush.
6. Your teacher will read the question to you.
7. First 10 questions – 1 mark each.
8. Questions 11-20: 2 marks each.

3.4 Test Questions:

3.4.1 Exercise 1

What is the 15^{th} number of this sequence ?
7 ; 12; 17 ; 22 ; . . .

3.4.2 Exercise 2

Virginia counted in 4's as follows:
4; 8; 12; 16; . . .
She stopped at the 64th number. What number did she count last?

3.4.3 Exercise 3

Find the value of Δ :

$$\Delta + \Delta + \Delta + O = 42 + \Delta + O \tag{3.1}$$

3.4.4 Exercise 4

Each letter in the following subtraction problem represents a digit. What is the value of A?

$$\begin{array}{r} A\ A\ A \\ -\ B\ 7B \\ \hline 1\ 8\ 2 \end{array}$$

Figure 3.2

3.4.5 Exercise 5

Sally said that $\frac{3}{4}$ of the health biscuits is 27. What is half the number of health biscuits ?

3.4.6 Exercise 6

Matchsticks were used to make the following blocks:

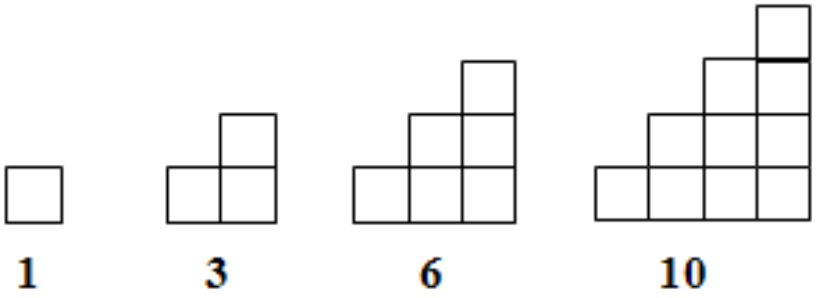

Figure 3.3

How many blocks are there in the 10^{th} figure?

3.4.7 Exercise 7

How many blocks are there in this stack?

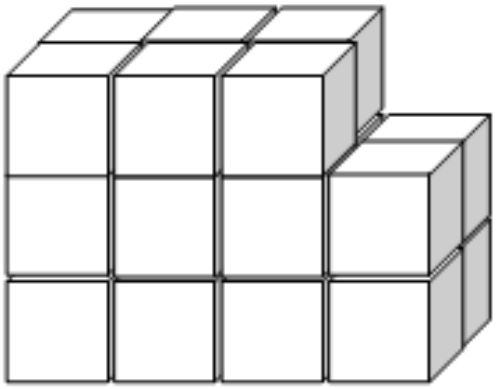

Figure 3.4

Thank You for previewing this eBook

You can read the full version of this eBook in different formats:

- HTML (Free /Available to everyone)
- PDF / TXT (Available to V.I.P. members. Free Standard members can access up to 5 PDF/TXT eBooks per month each month)
- Epub & Mobipocket (Exclusive to V.I.P. members)

To download this full book, simply select the format you desire below