



LIVING MATHS
Innovative education since 1995

The Living Maths Mathletics
Olympiad 2004 Grade: 5



PLEASE NOTE:

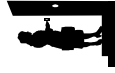
- Answer the questions according to the instructions on the answer sheet.
- Choose an answer from the possibilities below each problem.
- The teacher may explain the instructions to the learners.
- You may not use a calculator.
- Read the questions carefully!
- We hope you enjoy it!

NEEM KENNIS:

- Beantwoord die vrae deur die instruksies op die antwoordblad te volg.
- Kies 'n antwoord uit die onderstaande moontlikhede na elke probleem.
- Die onderwyser mag die instruksies aan die leerders verduidelik.
- 'n Sakrekenaar mag nie gebruik word nie.
- Lees die vrae aandagtig!
- Geniet dit!

1. Which is the most likely height for a bedroom door?

Wat sal die waarskynlike hoogte van 'n slaapkamer deur wees?



- (A) 0,5m (B) 2m (C) 13m (D) 5m (E) 10m

2. Add
Optel $\begin{array}{r} 6971 \\ +5291 \\ \hline \end{array}$

- (A) 11162 (B) 12162 (C) 12262 (D) 111112 (E) 1680

3. Mario uses 5 tomatoes to make half a litre of pizza sauce. How much sauce can he make from 15 tomatoes? Mario gebruik 5 tamaties vir 'n halwe liter pizzasous. Hoeveel sous kan hy maak van 15 tamaties?



- (A) 0.5 litres (B) 1 litres (C) 1.5 litres (D) 2.0 litres (E) 2.5 litres

4. When Dana was 6, Bertie was 9. When Dana was 12, Carl was 15. How old was Bertie when Carl was 7? Toe Dana 6 was, was Bertie 9. Toe Dana 12 was, was Carl 15. Hoe oud was Bertie toe Carl 7 was?

- (A) 8 (B) 6 (C) 9 (D) 7 (E) 10

5. Which number is halfway between 149 and 386? Watter getal is halfpad tussen 149 en 386?

- (A) 535 (B) 267,5 (C) 237 (D) 337 (E) 285



6. I am thinking of two numbers. When I add them I get 14. When I take one from the other, I get 6. What is the larger number?

Ek dink aan twee nommers. Wanneer ek hulle optel kry ek 14. Wanneer ek die een van die ander aftrek, kry ek 6. Wat is die groter getal?

- (A) 10 (B) 8 (C) 6 (D) 14 (E) 20

7. If 3 boys can build 3 Lego houses in 10 minutes, how many Lego houses can 1 boy build in an hour? As 3 seuns 3 Lego-huise in 10 minute kan bou, hoeveel Lego-huise kan 1 seun in 'n uur bou?

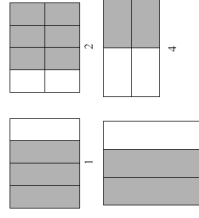
- (A) 8 (B) 9 (C) 3 (D) 15 (E) 6

8. Thandi needs to be at work at 09:00. In the morning, she takes 35min to bath, 15 min to dress, 20 min to get to work. What time does Thandi need to leave for work to get there on time?

Thandi moet by die werk wees om 09:00. In die oggend neem sy 35 minute om te bad, 15 minute om aan te trek en 20 minute om by die werk te kom. Hoe laat moet sy vertrek om betyds by die werk te kom?

- (A) 10:10 (B) 08:30 (C) 08:40 (D) 07:50 (E) 07:30

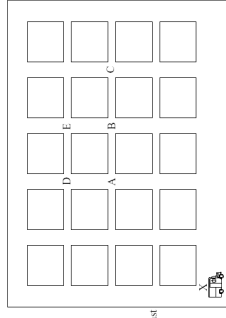
9. Each of the figures on the right represents a fraction. Which two figures represent the same fraction?



Elkeen van die figure op die regte kant verteenwoordig 'n breuk. Watter twee figure verteenwoordig dieselfde breuk?

- (A) 2 and 3 (B) 1 and 2 (C) 3 and 4 (D) 1 and 4 (E) 2 and 4

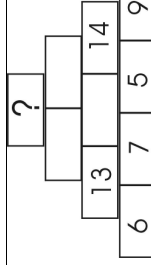
10. The map on the right shows part of a town. The delivery van starting at X, must travel 3 blocks to the East and 2 blocks to the North to deliver equipment to the school. On which corner will you find the school?



Die kaart op die regterkant dui 'n gedeelte van die dorp aan. Die aflewingswa begin by X, ry 3 blokke Oos en weer 2 blokke Noord om toerusting te gaan aflewer by die skool. Op watter hoek sal hulle die skool vind?

- (A) A (B) B (C) C (D) D (E) E

11. In the pyramid on the right, each number is found by adding the two numbers under it. For example $13 = 6 + 7$ and $14 = 5 + 9$. If you fill in the missing numbers, what number should go into the top block?



In die piramide op die regte kant word die getal bereken deur die onderste twee getalle bymekaar te tel. Byvoorbeeld: $13 = 6 + 7$ en $14 = 5 + 9$. As jy al die ontbrekende getalle invul, watter getal sal heel bo staan?

- (A) 43 (B) 29 (C) 34 (D) 51 (E) 23

12. My Teddy bear has many outfits. He has 2 shirts, 3 pairs of trousers and 4 hats. If Teddy wears one of each type of item, what is the most number of different outfit combinations that Teddy can wear?

My teddiebear het 'n paar uitrustings. Dit het 2 hemde, 3 langbroeke en 4 hoede. As Teddie elke item dra, wat is die meeste verskillende kombinasies van uitrustings wat Teddie sal hê om te dra?

(A) 1 (B) 3 (C) 9 (D) 12 (E) 24

13. The Living Maths class has less than 100 learners. When the teacher asked all the children to line up in pairs, Susan had no partner. When the teacher asked the children to line up in three's, again Susan was without a partner. The learners then lined up in four's and five's but each time, Susan was without a partner. How many learners are in the Living Maths class?

Die Lewende Wiskundeklas het minder as 100 leersers. Wanneer die onderwyser die leersers vra om pare te vorm, het Susan nie 'n maat nie. Wanneer die onderwyser die leersers vra om groepies van 3 te vorm, het Susan weer nie 'n maat gehad nie. Die leersers moes toe weer in groepe van vier's en vyf's verdeel, en elke keer was Susan sonder 'n maat. Hoeveel leersers is in die Lewende Wiskundeklas?

(A) 61 (B) 31 (C) 49 (D) 100 (E) 91


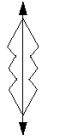

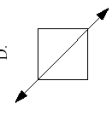
14. Which weighs more, a kilogram of feathers, a kilogram of water or a kilogram of steel?
Wat weeg meer: 'n kilogram vere, 'n kilogram water of 'n kilogram staal?

(A) Feathers/Vere (B) Steel/Staal (C) Water (D) All weigh the same/Al die gewigte is dieselfde (E) Bricks/BakStene

15. I have tables that seat 6 children, tables that seat 4 children and tables that seat 2 children. What is the minimum number of tables I would need to seat 80 children?
Ek het tafels wat 6 kinders kan by sit, tafels vir 4 kinders en tafels vir 2 kinders. Wat is die minimum getal tafels wat ek nodig sal hê vir 80 kinders?

(A) 12 (B) 13 (C) 14 (D) 16 (E) 18

16. Which of the shapes below do not show a line of symmetry?
Watter van die onderstaande figure het nie 'n simmetriese lyn nie?

A.  B.  C.  D. 

(A) A and/en B (B) B (C) B and/en C (D) C (E) A and/en D

17. Johan eats half his cake. He then gives a quarter of what is left, to his friend Ansie. What fraction of the original cake is left?
Johan eet die helfte van sy koek. Hy gee 'n kwart weg van wat oor is vir Ansie. Watter deel van die koek bly oor?

(A) $\frac{3}{4}$ (B) $\frac{3}{8}$ (C) $\frac{5}{8}$ (D) $\frac{1}{2}$ (E) $\frac{7}{8}$

18. How many numbers are there between 8,4 and 9,4?
Hoeveel getalle is daar tussen 8,4 en 9,4?

(A) 1 (B) 0 (C) 7 (D) 10 (E) Infinitely many/Oneindig baie

19. The Romans' unit of mass, the *libra*, was about 327 grams. One twelfth of a *libra* was an *uncia*. Approximately how many grams were there in an *uncia*?

Die Romeinse eenheid vir massa, die *libra*, was omtrent 327 gram. Een twaalfde van 'n *libra* was 'n *uncia*. Omtrent hoeveel gram was daar in 'n *uncia*?

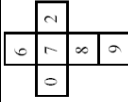
(A) 12 (B) 20 (C) 24 (D) 27 (E) 30

20. A brick has a mass of 2 kg. If you double the height, the width and the length of the brick, how much would it weigh?
'n Baksteen se massa is omtrent 2 kg. As jy die hoogte, breedte en lengte van die baksteen verdubbel, wat sal die baksteen weeg?

(A) 16kg (B) 8kg (C) 4kg (D) 12kg (E) 2kg

21. If the faces of a number cube are labelled as shown on the right, what are the chances of rolling a number greater than 2?

As die vlakke van 'n getalkubus genommer is soos in die figuur op regterkant, wat is die kans dat 'n getal groter as twee gegooi kan word?



(A) $\frac{1}{3}$ (B) $\frac{4}{6}$ (C) $\frac{1}{6}$ (D) $\frac{3}{6}$ (E) $\frac{1}{7}$

22. Danie is the youngest of three children. Bob is four years older than Danie. Ruben is eight years older than Danie. The sum of their ages is 174. How old is Ruben?

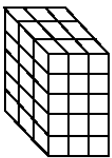
Danie is die jongste van 3 kinders. Bob is vier jaar ouer as Danie. Ruben is agt jaar ouer as Danie. Die som van hul ouderdomme is 174. Hoe oud is Ruben?

(A) 50 (B) 52 (C) 54 (D) 58 (E) 62

23. Find the smallest of 5 consecutive numbers whose sum is 100.
Vind die kleinste van opeenvolgende 5 getalle waarvan die som 100 is.

(A) 22 (B) 56 (C) 46 (D) 18 (E) 75

24. How many small blocks make up the figure on the right?
Hoeveel klein blokkies is in die onderstaande figuur?



(A) 60 (B) 65 (C) 50 (D) 55 (E) 45

25. The 14 digits of a credit card number are written in the boxes below. If the sum of any three consecutive blocks is 20, what is the value of A?

Die 14 syfers van 'n kredietkaart word in die blokkies hieronder ingevul. As die som van enige drie opeenvolgende blokkies 20 is, wat is die waarde van A?



(A) 9 (B) 4 (C) 7 (D) 6 (E) 8