

# **Jet SA Mathematics Challenge**

**GRADE 4 FINAL ROUND**  
**5 SEPTEMBER 2012**

**NOTE:**

- Answer the questions according to the instructions on the answer sheet.
- You may use a calculator.
- The questions test insight. Complex calculations will therefore not be necessary.
- We hope you enjoy it!

# **Jet SA Wiskunde-uitdaging**

**GRAAD 4 FINALE RONDE**  
**5 SEPTEMBER 2012**

**LET OP:**

- Beantwoord die vrae volgens die instruksies op die antwoordblad.
- Jy mag 'n sakrekenaar gebruik.
- Die vrae toets insig. Omslagtige berekening is dus onnodig en tydrowend.
- Ons hoop jy geniet dit!

1. A secret code has the word BACON coded as CBDPO. What would be the code for EGGS

- (A) SGGE      (B) DFFR      (C) FHHT

1. In 'n geheime kode word BACON geskryf as CBDPO. Wat is die geheime kode vir EGGS?

- (D) GIIU      (E) TUUZ

2. A movie on television is 2 hours 55 minutes long and ends at 16:45. At what time did it start?

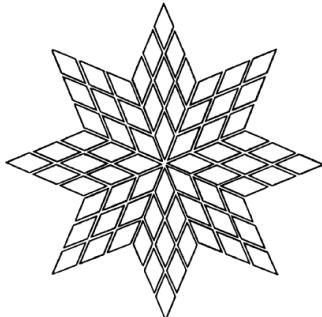


- (A) 13:40      (B) 14:10      (C) 13:50      (D) 13:10      (E) 14:25

2. 'n Film op televisie is 2 uur 55 minute lank en eindig om 16:45. Hoe laat het die film begin?

3. How many small squares are there in this three-dimensional figure?

3. Hoeveel klein vierkantjies is daar in hierdie drie-dimensionele figuur?



- (A) 63      (B) 72      (C) 80      (D) 81      (E) 90

4. Which number is exactly halfway between 64 and 96?

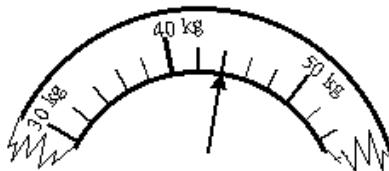
- (A) 79      (B) 81      (C) 82

4. Watter getal is presies halfpad tussen 64 en 96?

- (D) 80      (E) 78

5. What mass is indicated on the scale?

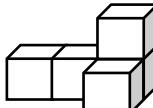
5. Watter massa word op die skaal aangedui?



- (A) 42 kg      (B) 40,2 kg      (C) 44 kg      (D) 40,4 kg      (E) 47 kg

6. What will you see if you look at this block building directly from behind?

6. Wat sal jy sien as jy presies van agter na hierdie blokgebou kyk?



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

7. How many triangles are there all together in this figure?

7. Hoeveel driehoeke is daar altesaam in hierdie figuur?



- (A) 9      (B) 6      (C) 7      (D) 8      (E) Not one of these  
Nie een hiervan nie

8. Meriam counts like this: 6, 11, 16, 21, 26, ...  
What is the 100<sup>th</sup> number she will count?8. Meriam tel so: 6, 11, 16, 21, 26, ...  
Wat is die 100<sup>ste</sup> getal wat sy sal tel?

**6, 11, 16, 21, 26, ....**

- (A) 600      (B) 500      (C) 602      (D) 501      (E) 601

9. Refer to the previous question: which of these numbers will Meriam count?

9. Verwys na die vorige vraag: watter van hierdie getalle sal Meriam tel?

- (A) 3730      (B) 4526      (C) 5185      (D) 6524      (E) 7353

10. Only one of these calculations is correct. Which one?

10. Slegs een van hierdie berekeninge is korrek. Watter een?

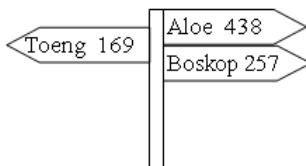
- (A)  $54 \times 65 = 3512$     (B)  $78 \times 19 = 1486$     (C)  $33 \times 58 = 1914$     (D)  $69 \times 10 = 695$     (E)  $82 \times 15 = 1235$

11. A train departs from Bellville station at 09:47 and arrives in Cape Town at 10:18. Another train on the same route leaves Bellville at 12:30. At what time does it arrive in Cape Town?

11. 'n Trein vertrek om 09:47 van Bellville-stasie en kom om 10:18 in Kaapstad aan. 'n Ander trein op dieselfde roete vertrek om 12:30 van Bellville. Hoe laat kom dit in Kaapstad aan?

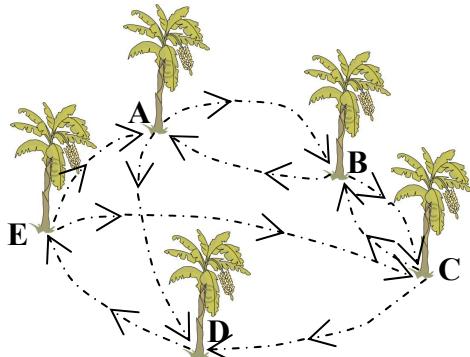
- (A) 13:18      (B) 13:01      (C) 01:01      (D) 13:12      (E) 12:51

12. This road sign at a T-junction shows the distance, in kilometres, to three towns. What is the distance between Aloe and Boskop?



- (A) 607 km      (B) 181 km      (C) 222 km      (D) 269 km      (E) 665 km
- 
13. In the previous question: What is the distance between Aloe and Toeng?
- (A) 607 km      (B) 181 km      (C) 222 km      (D) 269 km      (E) 665 km
- 
14. In Townville the park is 3 km west of the school. The library is 1 km west of the church. The church is 4 km east of the school. How far is the library from the park?
- 
- (A) 6 km      (B) 4 km      (C) 5 km      (D) 7 km      (E) 8 km
- 
15. Voyo has 24 marbles more than Bingo and Thandi has 24 less than Bingo. If Bingo has 71 marbles, how many do they have altogether?
- (A) 211      (B) 213      (C) 215      (D) 217      (E) 219
- 
16. Zinkle has 15 marbles less than Zuki. Together they have 95 marbles. How many marbles does Zuki have?
- (A) 80      (B) 40      (C) 55      (D) 50      (E) 110
- 
17. A shop sells potatoes in big bags with 40 potatoes for R35,60. If they want to sell smaller bags of 15 potatoes for the same price, what should the price of the smaller bag be?
- (A) R10,68      (B) R13,35      (C) R17,80      (D) R16,40      (E) R15,65
- 
18. Thabo and Peter buy a case of 12 cooldrinks and pay R30 for it. Thabo takes 4 bottles and Peter takes the other 8. How much must Thabo pay for his share?
- (A) R12      (B) R9      (C) R15      (D) R8      (E) R10
- 
19. Five children play tennis. Each child plays each of the others once. How many matches are played?
- (A) 20      (B) 12      (C) 6      (D) 10      (E) 15
- 
20. If you begin with a certain number, multiply it by 3, then add 8, then divide by 2 and then subtract 6, you will get the original number back. What is the number?
- (A) 20      (B) 13      (C) 8      (D) 6      (E) 4
- 
12. Hierdie padteken by 'n T-aansluiting gee die afstande, in kilometer, na drie dorpe. Wat is die afstand tussen Aloe en Boskop?
13. In die vorige vraag: Wat is die afstand tussen Aloe en Toeng?
14. In Townville is die park 3 km wes van die skool. Die biblioteek is 1 km wes van die kerk. Die kerk is 4 km oos van die skool. Hoe ver is die biblioteek vanaf die park?
15. Voya het 24 albasters meer as Bingo en Thandi het 24 minder as Bingo. As Bingo 71 albasters het, hoeveel het hulle altesaam?
16. Zinkle het 15 albasters minder as Zuki. Saam het hulle 95 albasters. Hoeveel albasters het Zuki?
17. 'n Winkel verkoop groot sakke met 40 aartappels vir R35,60. As hulle kleiner sakkies met 15 aartappels teen dieselfde prys wil verkoop, wat moet die prys van die kleiner sakkie wees?
18. Thabo en Peter koop 'n kis met 12 koeldranke en betaal R30 daarvoor. Thabo neem 4 bottels en Peter neem die ander 8. Hoeveel moet Thabo vir sy deel betaal?
19. Vyf kinders speel tennis. Elke kind speel een keer teen elkeen van die ander. Hoeveel wedstryde word gespeel?
20. As jy begin met 'n sekere getal, dit vermenigvuldig met 3, dan 8 bytel, dan deel deur 2 en dan 6 aftrek, sal jy die oorspronklike getal kry. Wat is die getal?

21. The sketch shows the footprints of a little monkey as he goes from tree to tree eating bananas. In which tree is the monkey hiding?



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

22. Study this pattern:

$$\begin{aligned}1 &= 1 \times 1 \\1 + 3 &= 2 \times 2 \\1 + 3 + 5 &= 3 \times 3 \\1 + 3 + 5 + 7 &= 4 \times 4\end{aligned}$$

Now calculate:

$$1 + 3 + 5 + 7 + \dots + 25 + 27 + 29$$

- (A) 841      (B) 196      (C) 144

22. Bestudeer hierdie patroon:

$$\begin{aligned}1 &= 1 \times 1 \\1 + 3 &= 2 \times 2 \\1 + 3 + 5 &= 3 \times 3 \\1 + 3 + 5 + 7 &= 4 \times 4\end{aligned}$$

Bereken nou:

$$1 + 3 + 5 + 7 + \dots + 25 + 27 + 29$$

- (D) 225      (E) 169

23. The science class did an experiment on how fast a certain type of candle burns. They recorded their measurements in the following table. How high will the candle be after 7 hours?

Time in hours	0	1	2	3	4
Height in cm	32	28	24	20	16

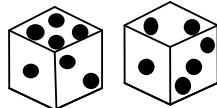
- (A) 0 cm      (B) 4 cm      (C) 8 cm      (D) 12 cm      (E) None of these  
Nie een hiervan nie

23. Die wetenskapklas het 'n eksperiment uitgevoer om uit te vind hoe vinnig 'n sekere soort kers brand. Hulle dui hul afmetings in die volgende tabel aan. Hoe hoog sal die kers na 7 ure wees?



24. If you roll two dice and multiply the two top numbers, how many different answers are possible?

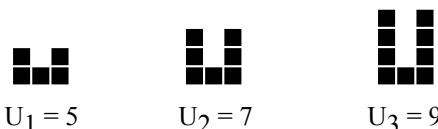
24. As jy twee dobbelstene rol en jy vermenigvuldig die twee boonste getalle, hoeveel verskillende antwoorde is moontlik?



- (A) 18      (B) 22      (C) 15      (D) 21      (E) 16

25. Study the following pattern. What is  $U_{20}$ ?

25. Bestudeer die volgende patroon. Wat is  $U_{20}$ ?



- (A) 43      (B) 44      (C) 45      (D) 46      (E) 47