

SA Mathematics Challenge 2017
GRADE 4 FIRST ROUND

SA Wiskunde-uitdaging 2017
GRAAD 4 EERSTE RONDE

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!

LET OP:

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

1. What is the next number in this number pattern?

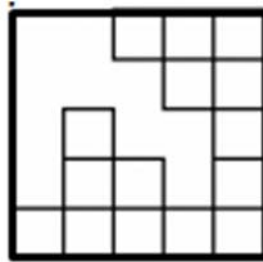
1, 121, 12321, 1234321, 123454321

- (A) 11234511 (B) 1122332211 (C) 12345654321 (D) 123456789 (E) 1234421

1. Wat is die volgende getal in hierdie getalpatroon?

1, 121, 12321, 1234321, 123454321

2. A big square was made of 25 smaller squares, but some of these small squares were lost, as shown below. How many small squares were lost?



- (A) 6 (B) 7 (C) 8 (D) 10 (E) 12

2. 'n Groot vierkant is met 25 kleiner vierkante gemaak, maar sommige van hierdie klein vierkante is toe verloor, soos hieronder getoon. Hoeveel klein vierkante is verloor?

3. Melanie has a total of 1480 cents in coins. What is the least number of coins that she has?



- (A) 7 (B) 6 (C) 3 (D) 8 (E) 4

3. Melanie het altesaam 1480 sent in muntstukke. Wat is die kleinste getal muntstukke wat sy het?

4. If yesterday was Monday, which day of the week will it be 52 days from now?

- (A) Monday (B) Tuesday (C) Wednesday (D) Thursday (E) Friday

4. As gister Maandag was, watter dag van die week sal dit wees 52 dae van vandag af?

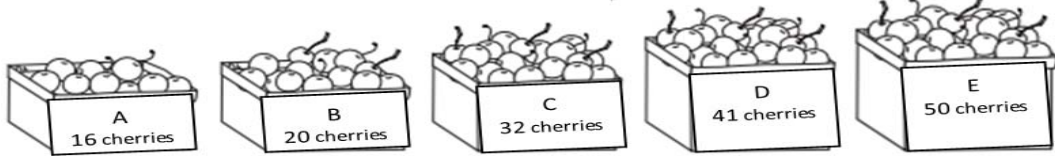
5. A movie on television is 2 hours 55 minutes long and ends at 16:45. At what time did it start?

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

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

- (D) 13:10 (E) 14:25

6. Oleg needs exactly 92 cherries to make a pie. Which three boxes will result in the fewest left over cherries?



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

6. Oleg het presies 92 kersies nodig om 'n pastei te bak. Watter drie bokse kersies sal die minste kersies oor los?

7. John has a secret number. If he adds 65 to his number, and then multiplies the result by 3, the final answer is 240. What was John's secret number?

- (A) 15 (B) 195 (C) 120

7. John het 'n geheime getal. As hy 65 by sy getal tel, en dan die antwoord met 3 vermenigvuldig, is die finale antwoord 240. Wat was John se geheime getal?

- (D) 80 (E) 62

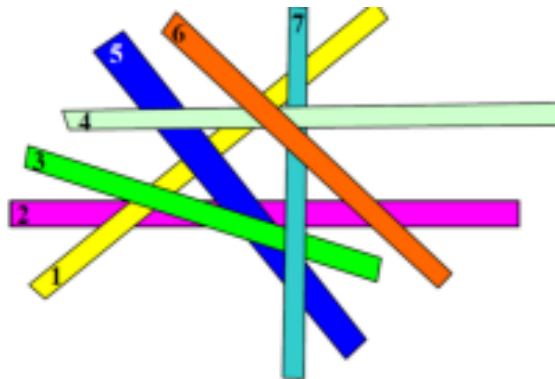
8. A store runs a promotion where the first 50 customers qualify for discounts as they enter the store. The first customer qualifies for R50 off, the second qualifies for R49 off, the third qualifies for R48 off and so on. What discount will the 36th customer qualify for?

- (A) R13 (B) R23 (C) R25

8. 'n Winkel het 'n promosie, waar die eerste 50 kliënte wat die winkel binnekom vir 'n afslag kwalifiseer. Die eerste kliënt kwalifiseer vir R50 afslag, die tweede vir R49 afslag, die derde vir R48 afslag, ensovoorts. Vir watter afslag kwalifiseer die 36^{ste} kliënt?

- (D) R26 (E) R15

9. In this diagram, 7 sticks lie on top of each other. Stick number 2 is at the bottom. Stick number 6 is at the top. Which stick is in the middle?



- (A) 1 (B) 3 (C) 4 (D) 5 (E) 7

9. In hierdie diagram lê 7 stokkies bo-op mekaar in 'n hoop. Stokkie nummer 2 lê onder. Stokkie nummer 6 lê bo. Watter stokkie is in die middel?

10. The chess board is damaged. How many black squares are missing on the right side of the line?

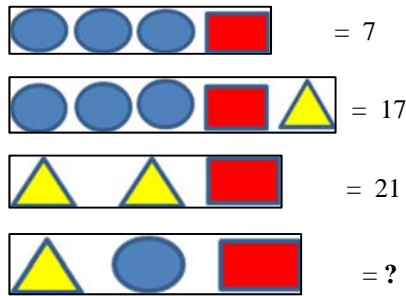


- (A) 11 (B) 12 (C) 13 (D) 14 (E) 15

10. Hierdie skaakbord is beskadig. Hoeveel swart vierkante is weg aan die regterkant van die lyn op die bord?

11. What is the value of the question mark?

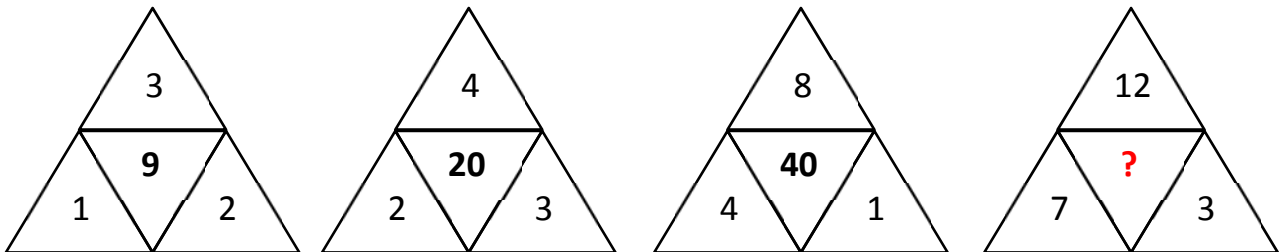
11. Wat is die waarde van die vraagteken?



- (A) 13 (B) 14 (C) 19 (D) 27 (E) 31

12. What is the value of the question mark?

12. Wat is die waarde van die vraagteken?



- (A) 22 (B) 48 (C) 120 (D) 100 (E) 252

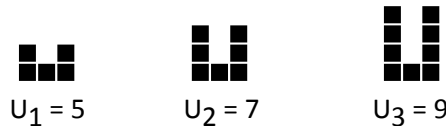
13. A rectangular piece of paper is folded in half six times. When the paper is unfolded, how many sections will it have been divided into?

13. 'n Reghoekige stuk papier word ses keer in die helfte gevou. As die papier nou weer oop gevou word, in hoeveel gebied sal dit verdeel wees?

- (A) 64 (B) 12 (C) 24 (D) 32 (E) 16

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

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



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

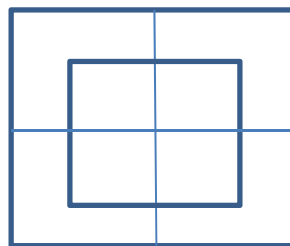
15. There are 20 knots on a string. They are equal distances apart. The distance between the first knot and the eighth knot is 140 cm. What is the distance between the first knot and the 20th knot?

15. 'n Tou het 20 knope, dieselfde afstand van mekaar. Die afstand tussen die eerste knoop en die agste knoop is 140 cm. Wat is die afstand tussen die eerste knoop en die 20^{ste} knoop?

- (A) 380 cm (B) 160 cm (C) 340 cm (D) 200 cm (E) 300 cm

16. How many rectangles of any size are in the figure?

16. Hoeveel reghoeke van enige grootte is daar in hierdie figuur?



- (A) 8 (B) 16 (C) 17 (D) 18 (E) 20

17. Samantha has these three number cards. She puts them next to each other to make 3-digit numbers, e.g. 247. How many different 3-digit numbers can she make with these cards?



- (A) 3 (B) 4 (C) 6 (D) 12 (E) 7

17. Samantha het hierdie drie kaarte. Sy plaas hulle langs mekaar om 3-syfer getalle te maak, byvoorbeeld 247. Hoeveel verskillende 3-syfer getalle kan sy met hierdie kaarte maak?

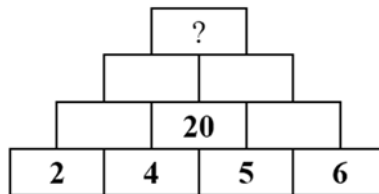
18. John wrote the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 on a whiteboard. John then erased some of the numbers and added up the remaining ones. He got a sum of 24. At most how many numbers were left on the whiteboard?

- (A) 3 (B) 4 (C) 5

18. John skryf die getalle 1, 2, 3, 4, 5, 6, 7, 8, 9 en 10 op 'n bord. Daarna vee hy sommige van die getalle uit. Toe tel hy die oorblywende getalle op, en kry 'n som van 24. Wat is die maksimum aantal getalle wat op die bord oorgebly het?

- (D) 6 (E) 7

19. In this number wall, you multiply the two numbers next to each other and write the product in the brick directly above the two numbers e.g. $4 \times 5 = 20$. Which number will be written in the top brick?



- (A) 960 (B) 9 600 (C) 960 000 (D) 96 (E) 96 000

19. In hierdie getal-muur vermenigvuldig jy die twee getalle langs mekaar en skryf die produk in die blok direk bo die twee getalle bv. $4 \times 5 = 20$. Watter getal sal in die boonste blok geskryf word?

20. A coin and a die are tossed simultaneously. What is the probability of getting a tail and a six?

(A) $\frac{1}{8}$

(B) $\frac{1}{2}$

(C) $\frac{1}{4}$

(D) $\frac{1}{12}$

(E) $\frac{1}{6}$



20. 'n Muntstuk en 'n dobbessteen word gelyktydig gegooi. Wat is die waarskynlikheid dat hulle op munt ("stert") en ses sal val?