SOUTHERN AFRICAN PRIMARY MATHEMATICS OLYMPIAD
FEMSSISA
(SAPMO)
GRADE FOUR
ROUND ONE
DATE: 29 JULY - 2 AUGUST 2019
TIME: 90 MINUTES

Instructions:

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NON PROFIT COMPANY
REGISTRATION NO: 2015/050119/08

GRADE FOUR 2019

1. Find ☐

   64 - ☐ = 38

   (A) 24 (B) 25 (C) 26 (D) 27 (E) 28

2. Find the sum of the remainders of
   303 ÷ 5 and 91 ÷ 3
   (A) 4 (B) 3 (C) 2 (D) 1 (E) 0

3. If 878
   - ABC
   392

   Then write down the 3 digit number ABC
   (A) 386 (B) 486 (C) 586 (D) 576 (E) 566

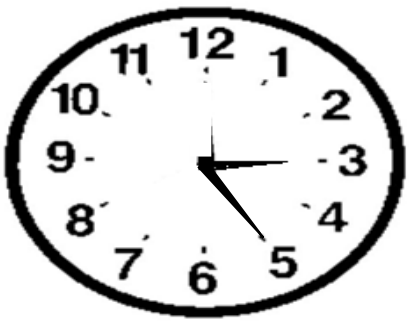
4. How many days are there from 12January 2019 to 12 April 2019?
   (A) 94 (B) 93 (C) 92 (D) 91 (E) 90

5. The number two thousand and sixty nine can be written as
   (A) 2 609 (B) 2 069 (C) 20069 (D) 3 069 (E) 3 609

6. 48(4 dozen) pears cost R90. How much will 16 such pears cost at the same rate?
   (A) R60 (B) R50 (C) R40 (D) R30 (E) R20

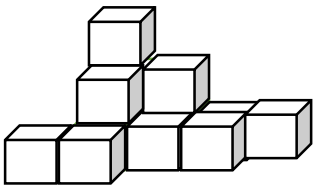
7. What is the 10th number of this addition sequence 9; 14; 19; 24; …
   (A) 49 (B) 54 (C) 59 (D) 64 (E) 69

8. What time did the clock show 3 hours and 20 minutes ago?



   (A) 11:40 (B) 11:45 (C) 11:50 (D) 11:55 (E) 12:05

9. How many blocks were used to build this structure?



(A) 13 (B)17 (C) 21 (D) 25 (E) 29

10. Guess the number.
I am a 2 digit number.
Both my digits are even
If you divide me by 4 the remainder is 2.
The ten's digit is 2 more than my units's digit.
(A) 24 (B) 64 (C) 86 (D) 92 (E) 46

11. Lettie's birthday was on 16 June. She was 45 days older than Prem. When was Prem's birthday in 2019?
(A)1 May (B) 2 May (C) 3 May (D) 4 May (E) 5 May

12. My sister placed a cake in the oven at 08:40: It takes 75 minutes to bake, then at what time should it be taken out of the oven?
(A) 09:35 (B) 09:40 (C) 09:45 (D) 09:50 (E) 09:55

13. If BC
BC
ABC
6 0 2

Then what is A+B+C ?
(A) 10 (B) 11 (C) 12 (D) 13 (E) 14

14. Twinkle has a certain amount of money. After spending R60 of the money and $\frac{1}{4}$ of the remainder she still has R90 left. How much did she begin with?

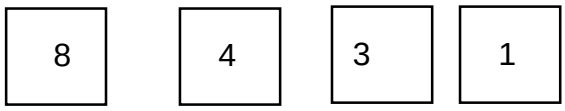
(A) R240 (B) R210 (C) R180 (D) R160 (E) R150

15. Tarry has 4 plastic digits 2; 3; 5; 6. He decided to make all possible 2 digit numbers with these digits and recorded these numbers. Determine the sum of all these 2 digit numbers.
(A) 520 (B) 528 (C) 536 (D) 544 (E) 552

16. Brenda removed all the multiples of 3 and 5 from the numbers 0 to 60? How many numbers remained?

(A) 30 (B) 31 (C) 32 (D) 33 (E) 34

17. Pansy has four cards number cards . She made 2 digit numbers. How many such numbers did she make?



(A) 10 (B) 12 (C) 14 (D) 16 (E) 18

18. Amy; Betsy and Carey have R920 in total. Betsy has twice as much as Carey but R80 more than Amy. How much does Carey have?

(A) R280 (B) R260 (C) R240 (D) R220 (E) R200

19. At school A the buzzer went off every 45 minutes. At school B the buzzer went off every 30 minutes. If both buzzers went off at 08:30 then at what earliest time will the buzzers go off together?

(A) 12:00 (B) 11:30 (C) 11:00 (D) 10:30 (E) 10:00

20. There was three times as many R2 coins as there were R5 coins in a container.
When added the total amount was R330. How many R5 coins were there?

(A) 24 (B) 30 (C) 36 (D) 42 (E) 48

MARKS: 15 X 1 = 15
5 X 2 = 10
TOTAL: 25

SOUTHERN AFRICAN PRIMARY MATHEMATICS OLYMPIAD
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GRADE FIVE
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NON PROFITCOMPANY
REGISTRATION NO: 2015/050119/08

GRADE FIVE 2019

1. Evaluate : 33 - 3 x 3
   (A) 16 (B) 18 (C) 20 (D) 22 (E) 24

2, Determine $\square$ such that 4 (5x5 - $\square$) = 48

   (A) 12 (B) 13 (C) 14 (D) 15 (E) 16

3. If 64 x $\square$ = 52 then 16 x $\square$ = …

   (A) 13 (B) 14 (C) 15 (D) 16 (E) 17

4. The estimation of R36,20 + R14, 60 + R 102,80 is

   (A) R180 (B) R160 (C) R154 (D) R150 (E) R140

5. How many times can 12 be subtracted from 603?
   (A) 56 (B) 54 (C) 52 (D) 50 (E) 48

6. How many days are there from 21 March 2019 to 16 June 2019?
   (A) 87 (B) 88 (C) 89 (D) 90 (E) 91

7. If 49 x 23 = 1127 then what is 50 x 23 =…

   (A) 1190 (B) 1180 (C) 1170 (D) 1160 (E) 1150

8. How many 350 ml bottles of pure juice can be filled from 5000 ml container of pure juice?
   (A) 12 (B) 14 (C) 16 (D) 18 (E) 20

9. If $\frac{2}{3}$ of my coins is 240 then how many coins do I have?
   (A) 420 (B) 400 (C) 380 (D) 360 (E) 340

10. Which is the largest?
    (A) 3,175m (B) 3,185m (C) 3,0675m (D) 3,1705m (E) 3,175m

11. If 15 litres of juice cost R96 then how much will 5 litres of juice cost at the same rate?
    (A) R40 (B) R36 (C) R32 (D) R28 (E) R24

12. An equal number of 50 cent and R2 coins were obtained from R360 notes. How many 50 cent coins were obtained?
(A) 128 (B) 132 (C) 136 (D) 140 (E) 144

13. A rectangular garden measures 108 m all round. If the length is 8 m longer than its width then find the width in metres.
(A) 23 (B) 24 (C) 25 (D) 26 (E) 27

14. How many 120cm lengths can you cut from timber which is 7 m in length?
(A) 3 (B) 5 (C) 7 (D) 9 (E) 11

15. Study the following problem. Do you know what (*) is doing to the 2 numbers?
3*6 = 18 3*8= 22 4*6 = 20
After you have discovered what (*) is doing then find the answer to (4*5)*6
(A) 56 (B) 52 (C) 48 (D) 44 (E) 40

16. Alvin had a secret number. 12 was subtracted from the number. The result was halved to give 14. What was Alvin's secret number?
(A) `52 (B) 48 (C) 44 (D) 40 (E) 36

17. ABCD is a square field with poles placed 5m apart. There were 40 poles all round. Find the perimeter in metres of the field. (distance all round)
(A) 120 (B) 140 (C) 160 (D) 180 (E) 200

18. Find the sum of the digits of the product.
1111 x 1111
(A) 16 (B) 17 (C) 18 (D) 19 (E) 20

19. Princess was given a $\frac{1}{5}$ of the price as a discount. She paid R400. What was the initial price of the article?

(A) R480 (B) R500 (C) R520 (D) R560 (E) R600

20. Red and white beads totalling 60 are arranged as follows:-
W R WW R WWW R WWWW R WWWWW R ….
How many are white beads?

(A) 54 (B) 53 (C) 52 (D) 51 (E) 50

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SOUTHERN AFRICAN PRIMARY MATHEMATICS OLYMPIAD
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GRADE SIX
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GRADE SIX 2019

1. Evaluate : 3 - $\frac{1}{4}$ x 8
   (A) 5 (B) 4 (C) 3 (D) 2 (E) 1

2. What is (11 ÷ 6) correct to 2 decimal digits?
   (A) 1.83 (B) 1.73 (C) 1.63 (D) 1.87 (E) 1.77

3. If 8n + 4 = 36 then n =…
   (A) 2 (B) 3 (C) 4 (D) 5 (E) 6

4. Evaluate 201 x 200 - 200 x 200
   (A) 201 (B) 200 (C) 199 (D) 198 (E) 197

5. What is the best estimate of 400 g of cocoa at R69.95 per kg?
   (A) R26 (B) R27 (C) R28 (D) R29 (E) R30

6. In the following addition problem find A x B x C

   B C
   A B C
   A B C
   9 1 7

   (A) 208 (B) 108 (C) 96 (D) 81` (E) 72

7. A vendor sold 40kg of tomatoes.. After selling $\frac{5}{8}$ of the remainder vendor had 90 kg of tomatoes left. How many kg of tomatoes did the vendor start with?
   (A) 210 (B) 240 (C) 260 (D) 280 (E) 300

8. Desiree beat the 400 metres record which was 54.2 seconds by 1.9seconds. What was Desiree's time in seconds?
   (A) 52.3 (B) 56.1 (C) 57.1 (D) 53.3 (E) 52.3

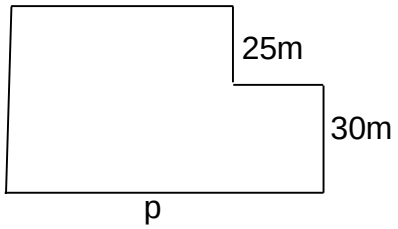
9. The actual distance between Ridgewood and Highwood is 720km. The map distance is 30cm. If the map distance between Ridgewood and Candlewood is 18cm then determine the actual distance between the two towns in km.
   (A) 216 (B) 336 (C) 384 (D) 432 (E) 480

10. When the 5 digit number 502m3 is divided by 9 the remainder is 3. The value of m is ...
    (A) 6 (B) 5 (C) 4 (D) 3 (E) 2

11. Determine the fraction x such that $\frac{1}{2}$ is midway between x and $\frac{2}{3}$
    (A) $\frac{1}{6}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{1}{7}$ (E) $\frac{1}{8}$

12. If $\frac{3}{4}$ of the discs is 240 then find $\frac{1}{8}$ of the discs.
    (A) 20 (B) 30 (C) 40 (D) 60 (E) 80

13. If the perimeter of the following figure is 250m then find the value of ‘p’ in ‘m’



(A) 70 (B) 75 (C) 80 (D) 85 (E) 90

14. In a hall there are 40 seats per row. Each row has 20 seats. The first 300 pay R60 per ticket and the rest pay R80. The expected revenue in rands for a cultural show if all the seats are occupied is….
(A) 90 000 (B) 80 000 (C) 70 000 (D) 60 000 (E) 58 000

15. How much does 5 litres of milk cost if 2250 ml cost R36 at the same rate?
(A) R50 (B) R60 (C) R70 (D) R80 (E) R90

16. In 8 years time Sam will be half his mother’s age.? His mother is 42 years old. How old was Sam 7 years ago?
(A) 8 (B) 9 (C) 10 (D) 11 (E) 12

17. Consider this arrangement

16				3	t

The sum of 3 consecutive numbers is the 3 blocks is 26. The value of ‘t’ is…
(A) 3 (B) 4 (C) 5 (D) 6 (E) 7

18. An article was marked down by 0,2 and then later increased by 0,1. What was the decrease as a decimal fraction?
(A) 0.14 (B) 0,12 (C) 0,11 (D) 0.10 (E) 0,09

19. 100 natural numbers were arranged from 21 to 120. Every 3rd number was struck off starting with 21. Every 5th number was struck off. How many numbers remained?
(A) 48 (B) 50 (C) 53 (D) 54 (E) 55

20. In the set of 20 natural numbers from 1 to 20 the sum of two numbers is found such that it is divisible by 9. How many such combinations are there?
(A) 12 (B) 13 (C) 14 (D) 15 (E) 16

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GRADE SEVEN 2019

1. Evaluate 20-(2+2)x2

(A) 8 (B) 9 (C) 10 (D) 11 (E) 12

Write down the value of

2. 2.2 x 0.3 x 0.2

(A) 1.132 (B) 0.132 (C) 0.0132 (D) 2.132 (E) 3.132

3 . Find the value of $\frac{7}{12}\ (24 - \frac{6}{7})$

(A) $\frac{31}{2}$ (B) $\frac{29}{2}$ (C) $\frac{27}{2}$ (D) 14 (E) 15

4. Find the value of:

222 x 112 – 110 x 222 - 222

(A) 220 (B) 222 (C) 224 (D) 226 (E) 228

5. Mark missed the 1500 metres school record by 3.8 seconds. What is the record in seconds if the Mark's time was 4min 33 seconds ?

(A) 4min 36.8sec (B) 4min 30.2sec (C) 4min 30.8sec

(D) 4min 29.2sec (E) 4min 29.8sec

6. In the following subtraction problem find B x C if

B B B

- B C

4 9 8

(A) 35 (B) 42 (C) 56 (D) 63 (E) 72

7. If $\frac{4}{9}$ of the of the houses built is 1200 then find $\frac{2}{3}$ of the houses built.

(A) 1400 (B) 1500 (C) 1600 (D) 1700 (E) 1800

8 The actual distance between Falon and Seaview is 750km. The map distance between Falon and Seaview is 30cm. The actual distance between Seaview and Ridge is 400km.. The map distance between these two towns in cm is …….

(A) 24 (B) 22 (C) 20 (D) 18 (E) 16

9 This is a Fibonacci type sequence

6; 6; 12; 18;30;…….

Which term is equal to 204?

(A) 7^{th} (B) 8^{th} (C) 9^{th} (D) 10^{th} (E) 11^{th}

10. If $\frac{3}{8} + \frac{n}{12} = \frac{19}{24}$

then the value of 'n' is…

(A) 8 (B) 7 (C) 6 (D) 5 (E) 3

11. When 515 is added to p the number is divisible by 36. What is the smallest positive value p can have?

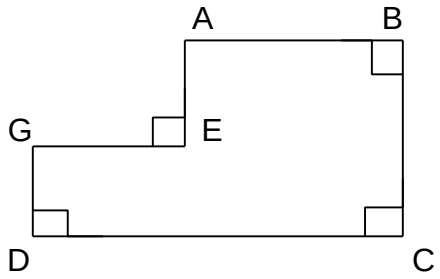
(A) 24 (B) 25 (C) 26 (D) 27 (E) 28

12. If the sum of the 5 consecutive days starting from Wednesday of the month is 75 then give the date of the third Tuesday of that month.

(A) 23rd (B) 22nd (C) 21st (D) 20th (E) 19th

13. The cost of walling this lawn ABCDGE at R180 per metre amounted to R36000 If AB = 36 metres and BC = 40 metres then give the measurement of GE in metres.

(A) 18 (B) 17 (C) 28 (D) 24 (E) 20



14. 252 apples and 224 pears were shared equally among all the learners present. What is the largest number of learners that could have been present?

(A) 32 (B) 30 (C) 28 (D) 26 (E) 24

15. Mandy had $\frac{2}{3}$ as much money as Pearl. After each spent an equal amount Mandy had R200 of her money left whilst Pearl had $\frac{2}{3}$ left. How much did each one spend?

(A) R180 (B) R200 (C) R220 (D) R240 (E) R260

16. The number of two-rand coins I need to pay for a purchase is R12 less than twice the number of five-rand coins I need to pay for the same purchase. What is the cost of the purchase?

(A) R60 (B) R70 (C) R80 (D) R90 (E)R100

17 .A;B and C are the digits of the 3 digit number ABC
The sum of A and C equals 7.
The product of A and B equals 32
The sum of B and C equals 11.

A x B x C =…

(A) 84 (B) 96 (C) 108 (D) 120 (E) 132

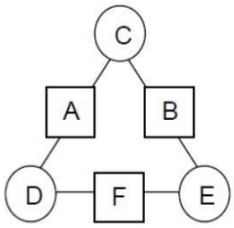
18. Eight years ago Selina would have been half her age in 3 years time. What will Selina's age be in 2 year's time?

(A) 12 (B)14 (C)16 (D)18 (E)21

19. 9 workers can do a job in 4 days. How long in days will it take 12 workers to do the same job if all work at their same rate?

(A) 6 (B) 5 (C) 4 (D) 3 (E) 2

20. The sum of the two numbers in the two circles gives the number in the square between them. If 2 x C + D = 25; C + 2 x E = 32 and A+ B + F = 58 then give the value of C x D x E



(A) 648 (B) 720 (C) 792 (D) 864 (E) 936

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