

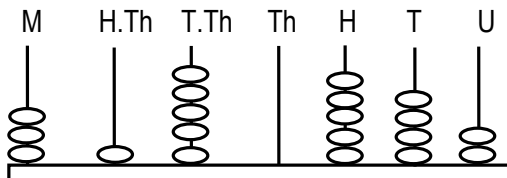
Scholars Universal Secondary School Mathematics Foundation.

Abiodun Akinyemi Close, Chicken Joe Area, Sango Ota, Ogun State
5th Annual Mathematics Whiz-kids Competition **Time: 120mins**

INSTRUCTION: Cheating is a serious offence and it will be dealt with accordingly. Attempt all questions. Write your answers legibly. Ensure that your exam number only is boldly written on top of your answer script. You are advised not to waste your time on a question you do not understand.

Where your answers as any of the options A to D.

1. The value on this abacus is



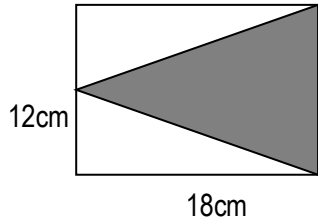
- A. 3,150,0542 B. 3,150,542 C. 3,105,0542 D. 3,105,542
2. Simplify $3^4 + 5^2 - 18$
A. 2 B. -1 C. 3 D. 88
3. The base are of a rectangular tank is 12m^2 and its volume is 66m^3 . What is the height of the tank?
A. 972cm B. 550cm C. 88cm D. 54cm
4. Change 16.05815 to the nearest tens.
A. 16 B. 20 C. 10 D. 30 E. 16.10
5. Decrease 256 by 25%
A. 192 B. 64 C. 231 D. 281
6. Divide the HCF of 6, 15, 18 by their LCM
A. $\frac{6}{90}$ B. $\frac{3}{1620}$ C. $\frac{1}{270}$ D. $\frac{1}{30}$
7. Which of the following is divisible by 2, 7 and 8 without a remainder?
A. 78 B. 28 C. 56 D. 36
8. Express 100cm^2 as a fraction of 2m^2 .
A. 0.50 B. $\frac{1}{50}$ C. 2 D. 0.05
9. Give the answer to 1month + 1 week + 1 day in hours.
A. 72hours B. 38hours C. 972hours D. 912hours
10. Simplify MML - MDCXXIV in Arabic numeral.
A. 326 B. 876 C. 926 D. 476

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11. Given that $X - 66 = 70$, find the value of $\frac{X}{8}$.
A. 4 B. 136 C. 68 D. 0.5
12. How many cm^3 of water can a 2m by 4m by 3m tank hold?
A. 24 B. 24 000 C. 2 400 D. 24 000 000
13. Express 120mm as a fraction of 1.2m
A. 0.1 B. 1.0 C. 10.0 D. 100
14. If $X^2 = 225$, what is the value of X?
A. 112.5 B. 450 C. 15 D. 50625
15. Simplify $\frac{1}{4}$ of $28 - \frac{3}{4} \div \frac{1}{2} \times (5\frac{5}{8} + 8\frac{3}{8})$
A. 7 B. 14 C. 0 D. no answer
16. Find the missing number: $563 - 4 * 8 = 145$
A. 2 B. 4 C. 3 D. 1
17. The prime factors of 144 are:
A. 2, 3 B. 2, 3, 4 C. 3, 4, 12 D. 2, 3, 4, 6
18. Find the square root of 784.
A. 614 656 B. $2^2 \times 7$ C. 392 D. 4×7^2
19. What is the minimum number that can be added to 11 to make it divisible by 2?
A. 1 B. 11 C. 3 D. 21
20. Which of the following numbers is the largest?
A. -500 B. 0 C. -300 D. -1
21. Divide the product of $1\frac{2}{3}$ and $1\frac{2}{5}$ by $2\frac{1}{3}$.
A. 0 B. 1 C. $7\frac{7}{45}$ D. $1\frac{11}{35}$
22. Find the difference between the sum of $2\frac{2}{3}$ and $\frac{2}{5}$, and $\frac{1}{15}$
A. 3 B. $3\frac{2}{15}$ C. $1\frac{17}{30}$ D. 46
23. Express the answer to 23.45×12.33 to 3 decimal places

- A. 289 B. 35.78 C. 289.13 D. 289.139

24. What fraction of the diagram below is not shaded?



- A $\frac{1}{2}$ B $\frac{1}{3}$
 C $\frac{2}{3}$ D $1\frac{1}{2}$

25. I spent $\frac{7}{32}$ of my income on rent, $\frac{1}{4}$ of it on food and $\frac{1}{8}$ on transport. What fraction of my income did I have left?
 A. $\frac{19}{32}$ B. $\frac{15}{32}$ C. $\frac{17}{32}$ D. $\frac{13}{32}$
26. Ade is 20 years old. He is 3 yrs younger than Chidi who is 7 yrs older than Aminu. How older is Ade than Aminu?
 A. 3 yrs B. 4 yrs C. 5 years D. 7 yrs
27. Amu's age is one third his father's age. He is X years old and his father's age is Y. Therefore
 A. $Y = \frac{1}{3}X$ B. $3Y = X$ C. $3Y = \frac{1}{3}X$ D. $Y = 3X$
28. I divided a number by 7. The result is a perfect square of another number. Which of the following is the number?
 A. 63 B. 49 C. 35 D. 14
29. 21 is added to a number. The result is divided by 4 which finally gives 6. What is the number?
 A. 2 B. 3 C. 14 D. 45
30. Last month, I bought 4Kg of rice with N800. This morning, I bought 5Kg of rice with same amount. By how much had the price of 1Kg of rice changed?
 A. N 200 B. N160 C. N100 D. N40
31. I had N8460. I spent half of it on my school uniform and one-third of the remainder on my school sandals, how much was left with me?
 A. N1420 B. N2820 C. N1403.33 D. N7016.3
32. A bus driver started a journey with 10 passengers. At every bus stop, he picks 3 more passengers but drop 1. At the end of the journey, he had 22 passengers. How many stops did he make..
 A. 1 B. 3 C. 5 D. 7
33. In Scholars Junior School, there are a gross of male students and 16 dozens female students. How many students are in the school?
 A. 17 B. 212 C. 292 D. 336
34. A train coach is loaded with 750.05 Kg of cocoa, 895kg of yam and 950g of cotton wool. This load equals:

- A. 164.6Kg B. 1646.0Kg C. 16.46Kg D. 2595.05Kg

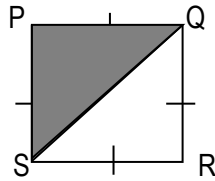
35. How long will it take to earn a simple interest of N8400 on N42000 at 5% per annum?
 A. 2yrs B. 3yrs C. 4yrs D. 5yrs
36. A car razed at 108Km/hr for 50 minutes. How far did it cover?
 A. 129.6m B. 9 000m C. 5 400m D. 90 000m
37. 12 men can do a job for 28 days. How many days can 16 men do the same job?
 A. 21days B. $3\frac{1}{2}$ days C. 32days D. $37\frac{1}{3}$ days
38. N32000 was share among Tola, Chinedu and Abdul in 4: 5: 7 respectively. How much was Chinedu's share?
 A. N 8000 B. N 10000 C. N 14000 D. N 16000
39. The circumference of a circle is 132m. Find its radius.
 A. 21m B. 42m C. 6.7m D. 36m
40. Mr Bamgbose is 30years old. His son is 10 years old. What was the ratio of their age two years ago?
 A. $\frac{1}{3}$ B. $\frac{5}{7}$ C. $\frac{2}{7}$ D. 36
41. Simplify $\frac{P + X}{P^2 - X^2}$ if P equals 20 and X equals 7
 A. 27 B. 13 C. 351 D. $\frac{1}{27}$
42. This diagram shows the food loved by JS 3 students .

 How many JS 3 students prefer rice and beans together?
 A. 3 B. 20 C. 27 D. 7
43. There are 5 red balls and 10 blue balls in a bag. If I take one of the ball, what is the probability that it is red?
 A. 5 B. $\frac{1}{5}$ C. $\frac{1}{3}$ D. 15
44. If $\frac{Y}{4} = \frac{1}{2}$, find the value of Y.
 A. $\frac{1}{2}$ B. 2 C. 8 D. 6
45. In Scholars Maths Whiz Kids quiz, Segun got 60 questions correctly, Kunle got $\frac{3}{4}$ of what Segun scored while Lasisi scored $\frac{2}{3}$ of what Kunle got. Show their performance in form ratio.
 A. 6:4:3 B. 20:15:12 C. 3:4:2 D. 4:3:2
46. Find the volume of a cylinder of radius 7m and height 2m. ($\pi = \frac{22}{7}$)
 A. 22m³ B. 154m³ C. 308m³ D. 44m³

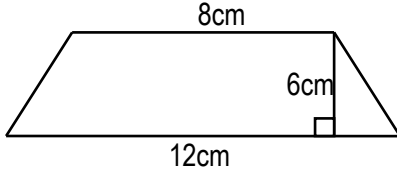
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47. Side QS = 14cm. is the diagonal of the square PQRS.
Find the shaded area.

- A. 196cm^2 B. 98cm^2
C. 49cm^2 D. 56cm^2



48. Find the area of the figure below:



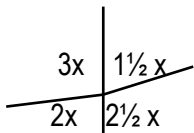
- A. 60cm^2 B. 48cm^2 C. 72cm^2 D. 576cm^2

49. A river flows at an average speed of 5m/s . What is the average speed in Km/hr ?

- A. $\frac{5}{1000}\text{Km/hr}$ B. 5000Km/hr C. 18Km/hr D. $1\frac{7}{18}\text{Km/h}$

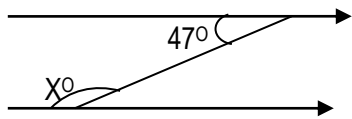
Find the value of x in questions number 46 to 48.

50.



- A. 40° B. 45° C. 50° D. 36°

51.



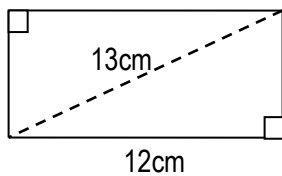
- A. 43 B. 133 C. 137 D. 47

52.



- A. 32 B. 122 C. 146 D. 58

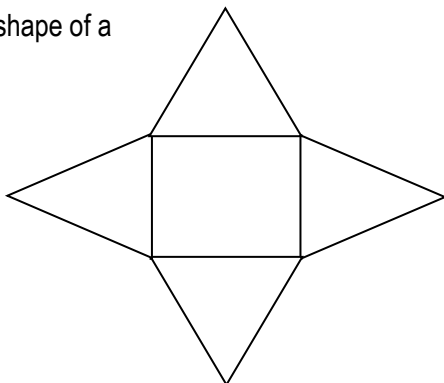
53. Find the perimeter of the shape below:



- A. 34cm B. 25cm C. 50cm D. 36cm

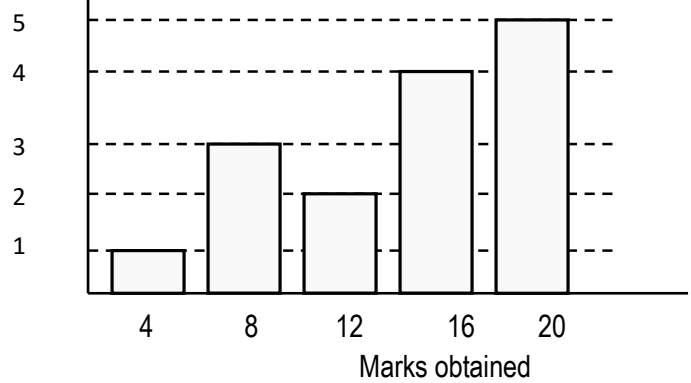
54. This is the net shape of a

- A. Kite
B. Star cone
C. Cuboid
D. Pyramid



Read the chart below to answer questions 55 and 56

Number of students



55. If 12 is the pass mark, how many students passed?

- A. 12 B. 11 C. 48 D. 15

56. What is the mean score?

- A. 14.4 B. 12 C. 16 D. 19.2

57. An estate agent gets 7% commission on every transaction. He helps my father to get a tenant who paid N 200,000. how much is his commission?

- A. N1,400 B. N14,000 C. N140 D. N140,000

58. Ajala bought a car at N700,000 and sold it at N735,000. Find the percentage profit.

- A. $4\frac{112}{147}\%$ B. 5% C. 95.2% D. 35%

59. An aeroplane cruising at 700Km/hr takes 6hrs to complete a journey. How long will it take to travel same distance if it travels at speed of 840Km/hr ?

- A. 3hrs B. 4hrs C. 5hrs D. 6hrs

60. A man is 55years old. He had worked for $3\frac{1}{2}$ decades. What fraction of his life time has been spent working?

- A. $\frac{7}{110}$ B. $\frac{7}{1100}$ C. $\frac{7}{1.1}$ D. $\frac{7}{11}$

61. The meaning of a.m and p.m respectively as used in time measurement are:

- A. after meridian and past meridian B. ante meridian and post meridian C. after mourning and past mourning

62. Sola borrowed N2,500 from a Scholars Bank PLC for 2years. He was charged 5% rate per annum of compound interest. How much did he pay back?

- A. N2,756.25 B. N2,750 C. N2,625 D. N250

63. Find the perimeter of a circle of radius 35cm, leaving your answer in metre. ($\pi = \frac{22}{7}$)

- A. 2.2m B. 383.50m C. 1.10m D. 77.00m

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64. Express South 60° East as a true bearing.

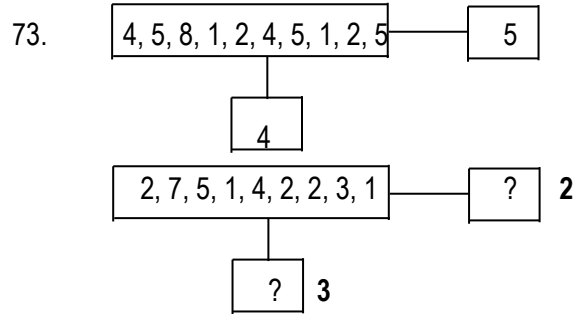
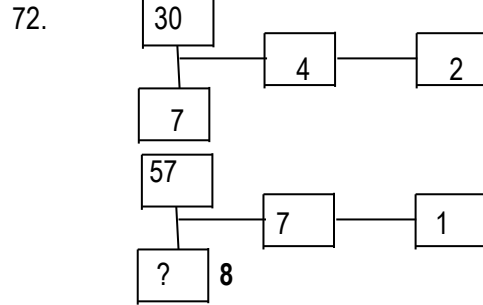
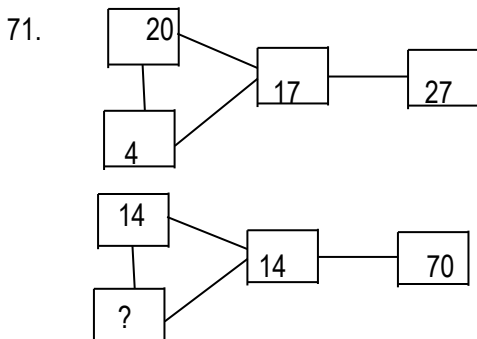
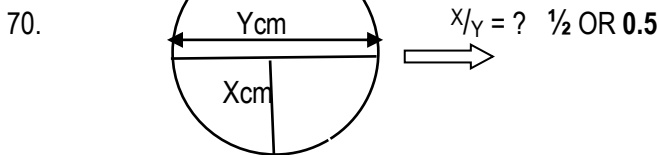
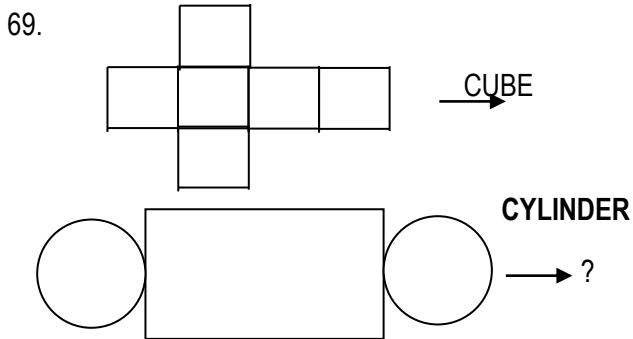
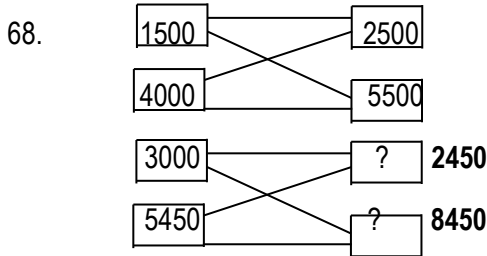
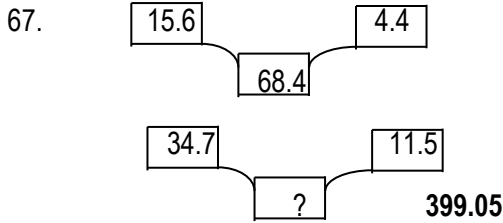
- A. 60° B. 30° C. 120° D. 90°

65. If P = number of faces of a cuboid and K = number of edges, what is the value of P/K ?

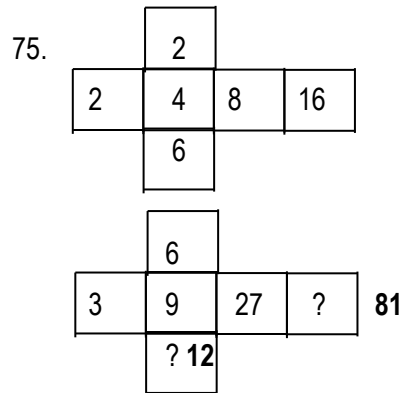
- A. no answer B. 1/2 C. 2/3 D. 2

Write answers to no. 66 to 75

66. If $50 \equiv 2, 5$ and $72 \equiv 2, 3$, therefore $80 \equiv ? 2, 5$



74. The shorter hand of a clock moves through 720° in a day. How many degree would it have covered by 11am? 330



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