



# FRONTRUNNER EXAM

## STANDARD SEVEN 2021

### MATHEMATICS

7

Time: 2 Hours

READ THIS INSTRUCTIONS CAREFULLY

1. Make sure that you have written on the answer sheet.

i) Your Name \_\_\_\_\_ ii) Name of your school \_\_\_\_\_

1. What is the value of six in the product of 3.86 and 4.2

- A. 0.06                      B. Ones  
C. Six                         D.  $6 \times 10$

2. Write 8 818 in words

- A. Eighty thousand eight hundred and eighteen  
B. Eight thousand eight hundred and eighteen  
C. Eight thousand eight hundred and eight  
D. Eight thousand eighty hundred and eighteen

3. Work out the square root of  $16^2$

- A. 16                         B. 4  
C. 256                       D. 2

4. What is the reciprocal of  $8\frac{3}{4}$

- A.  $\frac{35}{4}$                         B.  $8\frac{4}{3}$   
C.  $\frac{4}{35}$                         D.  $4\frac{3}{8}$

5. The cost of one pencil is sh. p and the cost of one rubber is sh. r. Pepe bought five pencils and seven rubbers. How much did he pay?

- A. Sh. 12                     B. Sh.  $p + r$   
C. Sh.  $5p + 7$              D.  $5p + 7r$

6. Work out:  $516.85 + 27.628$

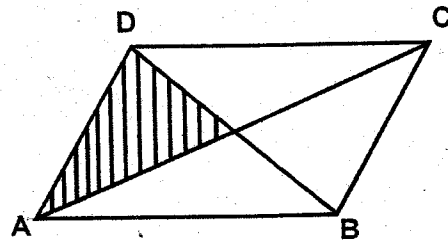
Correct to two decimal places

- A. 544.48                    B. 544.478  
C. 544.47                    D. 544.40

7. Which of the following statements best explains what a reflex angle is

- A. An angle which is less than 180  
B. An angle which is greater than 90  
C. An angle which is less than 90  
D. An angle which is greater 180

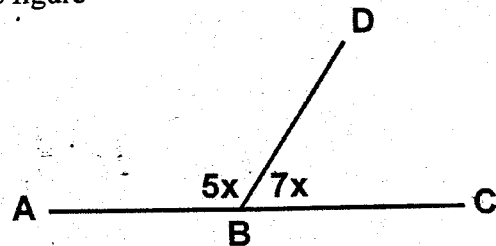
8. The following is a rhombus ABCD with  $AC = 10$  and  $BD = 8$ cm



Calculate the area of the shaded part

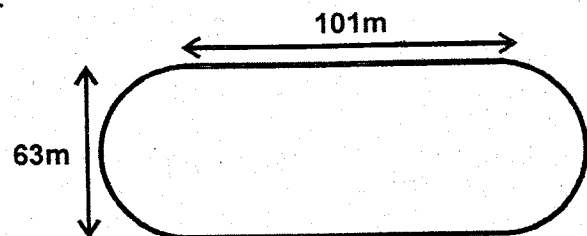
- A. 40                      B. 10                      C. 80                      D. 8

9. Calculate the value of angle marked CBD in the figure



- A.  $75^\circ$                       B.  $15^\circ$                       C.  $105^\circ$                       D.  $100^\circ$

10.



The above figure represents a truck. Jomba walked round the tract twelve times.

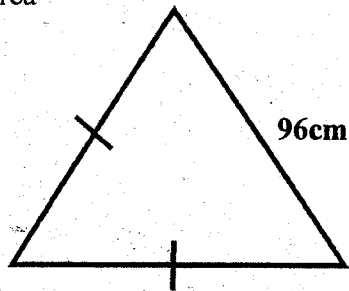
What distance did he cover in kilometres

- A. 400                      B. 0.4                      C. 4800                      D. 4.8

11. Six men take 5 days to weed a piece of land. How many more days will four men take to complete the work if they are working at the same rate
- A.  $7\frac{1}{2}$     B.  $12\frac{1}{2}$     C.  $2\frac{1}{2}$     D. 2

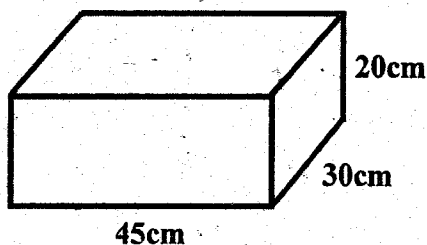
12. Which of the following is the possible value of  $x$  in the in-equality given below:  $2x - 1 < 5$
- A. 3    B. 2.9  
C. 3.2    D. 3.9

13. The perimeter of the following figure is 196cm find its area



- A. 672    B. 1344  
C. 1150    D. 4800

14. The following figure represents a building. The floor of the building was made using square tiles of length five centrimetres. How many tiles were used to cover the floor completely



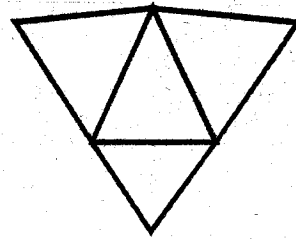
- A. 36    B. 24  
C. 54    D. 6750

15. How many years make a decade ?
- A. 100    B. 1000  
C. 20    D. 10

16. What is 0.7% as decimal
- A. 0.7    B. 7.0  
C. 0.07    D. 0.007

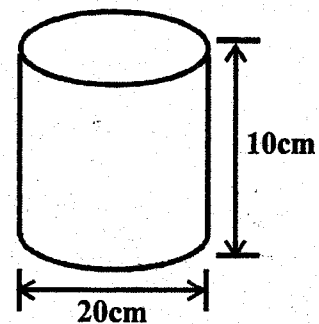
17. Concert  $50\,000\text{m}^3$  into  $\text{cm}^3$
- A. 0.005    B. 0.5  
C. 0.05    D. 5

18. The following is a model of a certain figure. Alera was asked by her math teacher to fold the net so as to come up with a mathematical shape. What was the name of the shape formed finally



- A. Triangular prism  
B. Triangular based pyramid  
C. A square pyramid  
D. A rectangular based prism

19. What is the total value of digit three in the quotient of 1956 and 6
- A. 30    B. 300    C. 3000    D. 3
20. What is 0.278 as a percentage
- A. 2.78    B. 278    C. 2780    D. 27.8
21. Work out the volume of the following circular prism use  $(\pi = 3.14)$



- A. 3140    B. 314    C. 1226    D. 3400

22. The distance from Jerusalem to Jericho is 1.4km. Electric poles are to be erected along one side of this road at an interval of 2m apart. How many poles were erected
- A. 702    B. 701    C. 700    D. 1402
23. What is  $\frac{18}{6}$  correct to two decimal places
- A. 3.00    B. 0.33    C. 0.34    D. 0.30
24. Boxer and Nyanga shared some books in the ratio of  $\frac{2}{3}$  respectively. If Nyanga got 15 books, how many books did they share altogether.
- A. 10    B. 9    C. 25    D. 35
25. What is the square of 0.81
- A. 6.561    B. 0.9    C. 65.61    D. 0.6561
26. The temperature of water was  $25^\circ\text{C}$  Wekoye put the water on fire till it boiled. What was the temperature rise
- A.  $75^\circ\text{C}$     B.  $100^\circ\text{C}$     C.  $85^\circ\text{C}$     D.  $12^\circ\text{C}$

27. Nambwaya started shaving his hair at 0000hrs. If she shaved for one and a quarter hours, at what time in am/pm did he complete the work  
 A. 13:15 am                      B. 13:15 pm  
 C. 01:15 am                      D. 1:15 am

28. The following table shows the number of animals in Kangu's farm

Goats <sup>n</sup>	Cows	Sheep	Pigs
10	8	13	5

If a pie-chart was to be drawn what, angle would represent pigs

- A. 100      B. 50      C. 90      D. 60

29. What is the value of z in:  $z = a + \frac{a - c}{b}$

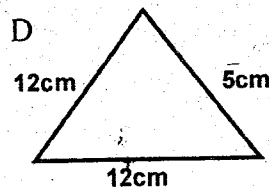
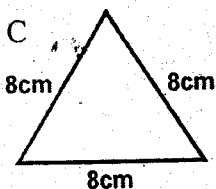
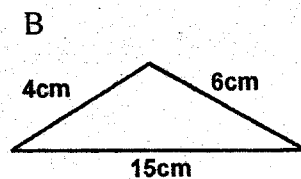
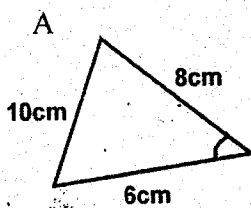
If  $a = 8, b = 1$  and  $c = 5$

- A. 3      B. 8      C. 11      D. 9

30. Kamama bought some items from a shop whose total bill was sh. 925. How much was she to add the shopkeeper for her to be given a balance of sh. 100 note. If she paid using sh. 1000 note  
 A. Sh. 25                      B. Sh. 1025  
 C. Sh. 175                      D. Sh. 75

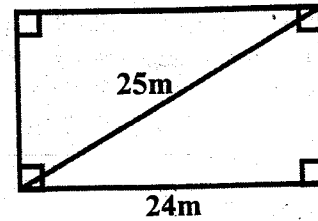
31. The mean mass of five pupils is 42kg. Four of the pupils weigh 41, 43, 40, 42. What is the mass of the fifth pupil  
 A. 41      B. 43      C. 44      D. 42

32. Which of the following triangles is scalene triangle



33. Draw a circle to pass through the vertices of triangle QRS in which  $QR = 6\text{cm}$   $QS = 7.5\text{cm}$  and angle  $RQS = 80^\circ$ . Measure the diameter of the circle  
 A. 9 cm      B. 5 cm      C. 7 cm      D. 12 cm

34.



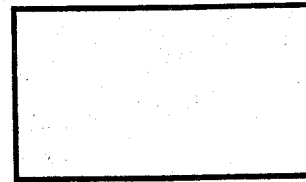
The above figure represents Nandwa's flower garden. She fenced the garden using six strands of barbed wire. What length of wire did she  
 A. 62      B. 480      C. 372      D.

35. A teacher borrowed sh. 6000 from the teaching bank that earned simple interest. After 2 years the money had earned an interest of sh. 360. Calculate the rate per annum  
 A. 1%      B. 4%      C. 2%      D.

36. Belindah bought forty tins of maize for sh. and sold each tin at sh. 60. How much was the profit  
 A. 200      B. 1940      C. 2060      D.

37. Alternating angles are also known as  
 A. Z-angles                      B. Fish mouth angles  
 C. X-angles                      D. Parallel angles

38. The following is a square whose area is one hectare. What is its perimeter in metres.

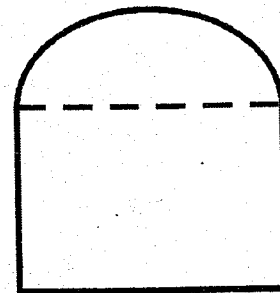


- A. 0.004      B. 400      C. 4000      D.

39. What is the next number in the pattern given by 8, 12, 20, 32, \_\_\_\_\_  
 A. 42      B. 52      C. 50      D

40. What is the product of L.C.M and G.C.D of 12 and 36  
 A. 216      B. 864      C. 144      D

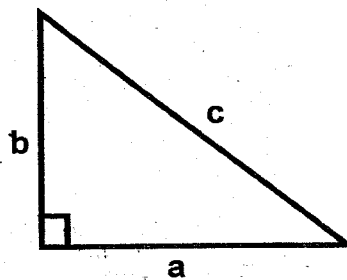
41.



The above figure is a semi-circle joined on a square of side 14cm, calculate the area of the figure  
 A. 350      B. 196      C. 273      D

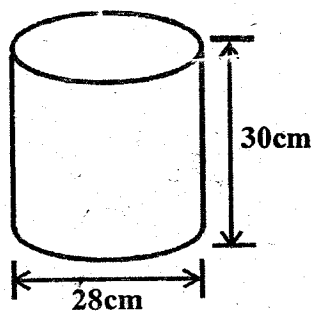
42. Auma walked a distance of 36km in one hour. Calculate her speed in metres per second  
 A. 100m/s                      B. 10m/s  
 C. 12m/s                        D. 72m/s

43.



From the above right angled triangle, which statement is true

- A.  $a^2 + b^2 = c^2$                       B.  $a + b = c$   
 C.  $a^2 + b^2 = c$                         D.  $a + b = c^2$
44. A sales boy remained with sh. 2000 after having given the boss sh. 10 000. Calculate the percentage commission  
 A. 20%                                      B. 10%  
 C.  $16\frac{2}{3}\%$                                       D. 25%
45. Calculate the surface area of the following figure if it is open at the bottom



- A: 616    B. 2640    C. 3872    D. 3256

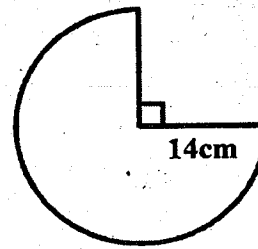
46. Atieno worked out the sum given by their teacher as show below:

$$\begin{array}{r} 2 \\ 4 \overline{) 8} \end{array}$$

If number two is the quotient, which name is given to number eight

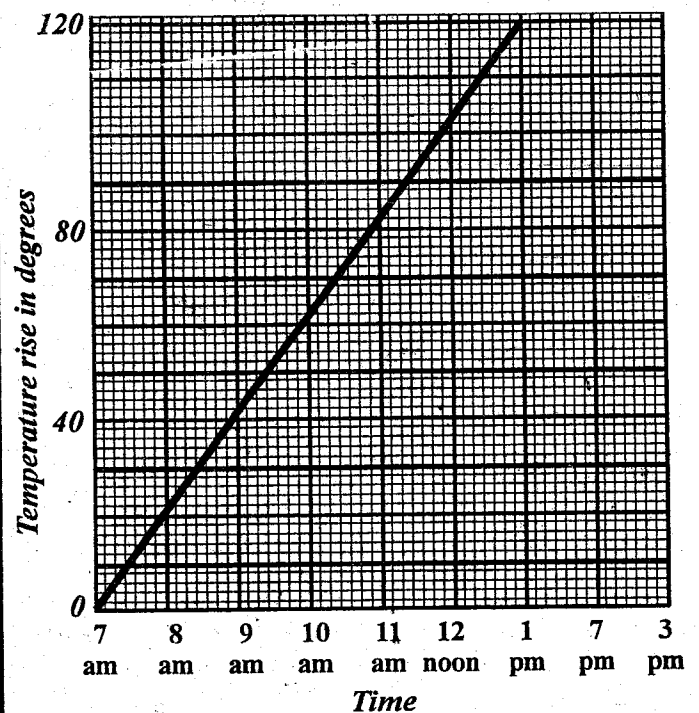
- A. Dividend                                      B. Product  
 C. Divisor                                        D. Reciprocal

47. Calculate the circumference of the following figure



- A. 22    B. 33    C. 94    D. 66

48. Anyango bought a radio on ire purchase terms. If se paid a total o sh. 5700. Calculate the deposit if she had completed the balance in six equal monthly installments of sh. 700 each  
 A. 4200    B. 1500    C. 9900    D. 3200
49. What is the place value of digit six in 256 148  
 A. Hundreds                                      B. Tens  
 C. Thousands                                      D. Six thousand
50. Pupils were seen boiling water during their Science lesson. They observed how temperature water rose with time and recorded the results. They were advised by their teacher to draw a line graph of results as shown below.



At what time was water at boiling point.

- A. 1 pm    B. 7 am    C. 11:30 am    D. 12 noon