"HARDWORK PAYS"

THE FRONT RUNNER

FRONTRUNNER EXAM SERIES

STANDARD EIGHT -YEAR 2022

[8] MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

Time : 2 Hours

1. Use an ordinary pencil only.
2. Make sure that you have written on the answer sheet:-
   (I) YOUR INDEX NUMBER **(II) YOUR NAME** **(III) NAME OF YOUR SCHOOL**
3. When you have chosen your answer, mark it on the ANSWER SHEET, not in this question booklet.

1. What is the total value of digit **6** in the number **364951**?
   A. 600 B. 6000
   C. 60,000 D. Ten thousand

2. Which among the numbers is divisible by **8**?
   A. 412876 B. 59386
   C. 51232 D. 46393

3. What is the product of the squares of 8 and 6?
   A. 100 B. 1104
   C. 384 D. 2304

4. The area of a square is 2704cm^2. Find the measure of one side of the square.
   A. 52 B. 42
   C. 51 D. 48

5. Find the sum of the L.C.M of **8, 12** and **36** and the G.C.D of **48, 54** and **18**
   A. 72 B. 78
   C. 18 D. 76

6. A factory produced 30496 bags of cement on Monday, 18469 on Tuesday, 27469 on Wednesday and 21338 on Thursday. If 40860 bags of cement were sold, how many bags of cement remained?
   A. 97772 B. 138632
   C. 59612 D. 56912

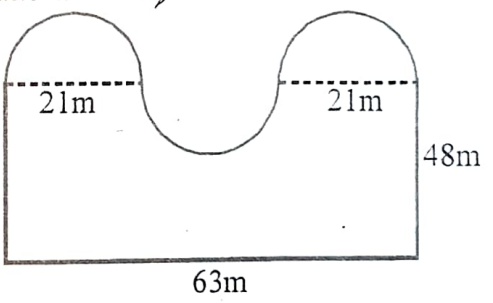
7. What is the value of 748673 rounded off to the nearest thousand?
   A. 748000 B. 750000
   C. 749000 D. 748700

8. Find the value of $^3/_4 - (^2/_5 \text{ of } ^1/_8) + ^1/_8 =$
   A. $^{29}/_{30}$ B. $^{11}/_{60}$
   C. $^{97}/_{120}$ D. $^{67}/_{120}$

9. A bag of beans has a mass of 90.4kgs. The mass of an empty bag is 250g. Suleiman bought 15 bags of beans. What was the total mass of beans bought in kilograms?
   A. 1627.2kg B. 1352.25kg
   C. 1359.75kgs D. 5106kg

10. Which among the numbers have been written in descending order?
    A. $^3/_4$, 56%, 0.64 B. 0.64, 56%, $^3/_4$
    C. $^3/_4$, 0.64, 56% D. 56%, 0.64, $^3/_4$

11. Find the perimeter of the figure below
    (Take $\pi = ^{22}/_7$)



    A. 225m B. 204m
    C. 222m D. 258m

12. Muli bought 8 chairs at Sh. 240 each. He later sold them all at Sh. 1000 more than the buying price. What was the profit for each chair?
    A. Sh. 365 B. Sh. 225
    C. Sh. 125 D. Sh. 135

13. A school board meeting started at 8:25 a.m and ended at 1730hrs. How long did the meeting take?
    A. 9 hours 15 minutes
    B. 8 hours 05 minutes
    C. 9 hours 05 minutes
    D. 10 hours 05 minutes

14. Simplify the expressions:
2(3x + 4y) + 3(5x - 6y)
A. 21x - 10y B. 18x + 33y
C. 21x + 6y D. 21x + 30y

15. Asha can weave $2^{1}/_{10}$m of rope for every one hour. How many metres will she weave in $4^{1}/_{3}$hrs?

A. $6^{13}/_{30}$m B. $9^{1}/_{5}$m

C. $9^{1}/_{10}$m D. $6^{1}/_{10}$m

16. Work out: $\sqrt{\frac{196}{576}}$

A. $^{13}/_{24}$ B. $^{14}/_{24}$

C. $^{14}/_{26}$ D. $^{13}/_{28}$

17. What is the next number in the sequence?
16, 21, 28, 37, 48, _____
A. 85 B. 61
C. 59 D. 63

18. Work out: 48693 - 21304 + 69361 =
A. 97650 B. 96705
C. 96750 D. 97750

19. Moyes scored $^{7}/_{25}$ in a Mathematics quiz. What percentage mark was this?
A. 28% B. 70%
C. 34% D. 68%

20. Draw triangle **ABC** in which line **AB** = 6cm, angle **BAC** = 90° and **AC** = 8cm. Find the measure of line **BC**
A. 12cm B. 7cm
C. 15cm D. 10cm

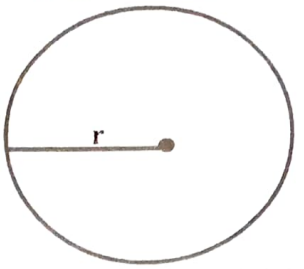
21. Julia earns a basic salary of Sh. 4800 per month. If she save 40%, how much does she spend?
A. Sh. 1920 B. Sh. 2080
C. Sh. 2880 D. Sh. 2680

22. Work out:

L		Ml
4	2	5 6 3
x		9

A. 383L 167ml B. 378L 067ml
C. 383L 670ml D. 383L 067ml

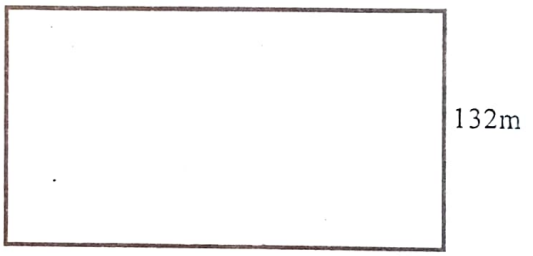
23. The circumference of the circle below is 1.54cm. Find its radius *r*.



A. 0.245cm B. 0.14cm
C. 0.28cm D. 0.254cm

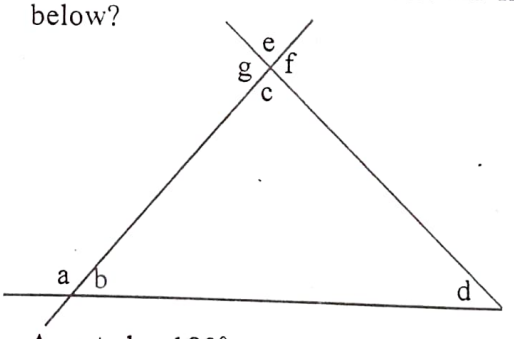
24. Sharon bought the following items from a shop'
2kg beans @ Sh. 120.00
2 $^{1}/_{2}$kg sugar @ Sh. 80.00
1kg bar of soap @ Sh. 110.00
1 $^{1}/_{2}$kg rice @ Sh.60.00
If she paid using Sh. 1000, how much should she give the shopkeeper to obtain 2 - two hundred shillings notes?
A. Sh. 60 B. Sh. 40
C. Sh. 360 D. Sh. 70

25. Sulei's farm measures 240m by 132m. Find its area in hectares.



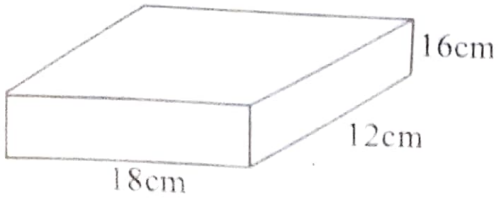
A. 31.68m² B. 0.3168m²
C. 3.168m² D. 31680m²

26. Which statement is true about the figure below?



A. a + d = 180°
B. d + f = 180°
C. e + f + d + g = 360°
D. e + b + d = 180°

27. Find the volume of the cuboid below



A. $3564cm^3$ B. $3456cm^3$
C. $4456cm^3$ D. $3465cm^3$

28. John covered 630km and realised that he used 7 hours to cover the distance. What speed was he travelling at?
A. 90km/h B. 120km/h
C. 78km/h D. 84km/h

29. Solve for x; $8 + {}^{1}/_{4}x = 8$
A. 64 B. 12
C. 32 D. 0

30. What is the reciprocal of $10^{1}/_{4}$?

A. $^{41}/_{4}$ B. $^{4}/_{41}$

C. $^{4}/_{40}$ D. $4^{1}/_{10}$

31. The table below shows the number of accidents which occured in the first six months of the year.

Month	No. of accidents
January	120
February	180
March	210
April	170
May	140
June	200

In which two consecutive months did the highest number of accidents occur?
A . February, March B. March, April
C. January, February D. May, June

32. Yego bought a video machine for Sh. 2,890 and later sold it for Sh. 3,375. How much was the profit?
A. Sh. 395 B. Sh. 460
C. Sh. 485 D. Sh. 435

33. What is $765600cm^3$ converted into m^3?
A. $0.7656m^3$ B. $76.56m^3$
C. $0.07656m^3$ D. $7.656cm^3$

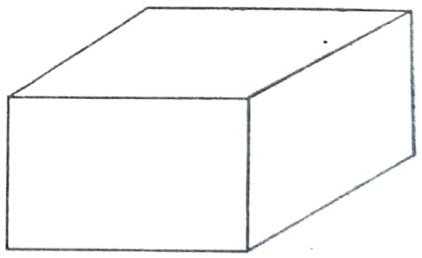
34. Salt weighing 8.4 tonnes was repacked into 60g packets. How many packets were obtained?
A. 140000 B. 1400000
C. 1400 D. 14000

35. The following information represents the number of children vaccinated in a certain hospital against Polio in a week.
Monday -210, Tuesday -300, Wednesday-160, Thursday- 230, Friday -282, Saturday- 194 and Sunday -290.
What was the mean weekly attendance?
A. 210 B. 238
C. 311 D. 187

36. Which among the set comprises of two odd numbers and two prime numbers?
A. 5, 12, 13, 19 B. 15, 27, 43, 47
C. 15, 21, 37, 49 D. 51, 53, 9, 12

37. A path 8.4m long was drawn to the scale of 1cm to represent 4m. What was drawing length?
A. 2.1cm B. 2.2cm
C. 21cm D. 2.4cm

38. Find the sum of *faces*, *edges* and *vertices* of the open cuboid below.



A. 26 B. 21
C. 25 D. 24

39. Which statement is true?
A. $0.7 > 0.67$ B. $1.42 = {}^{142}/_{1000}$
C. ${}^{6}/_{8} = {}^{3}/_{4}$ D. $80\% < {}^{2}/_{3}$

40. The sum of two numbers is 148938. One of the numbers is 106421. Find the other number.
A. 45217 B. 42517
C. 42175 D. 420517

41. Work out;

8kg	430g
x	7

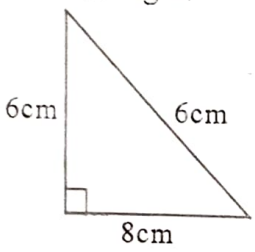
A. 56kg 010g B. 59kg 010g
C. 59kg 310g D. 58kg 010g

42. A class has 48 pupils. If $^{2}/_{3}$ are girls, how many boys were present in a day when 3 of them failed to come to school?
A. 16 B. 18
C. 13 D. 21

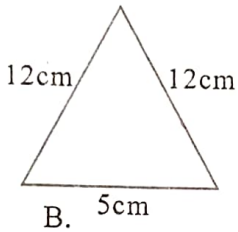
43. What is the smallest number which is divisible by 20 and 36 without a remainder?
A. 180 B. 360
C. 240 D. 720

44. Which among the following figures is a scalene triangle?

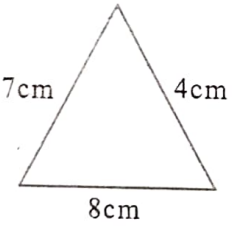
A.



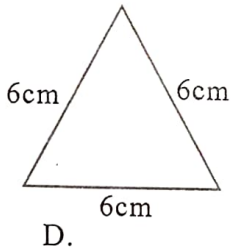
B.



C.



D.



45. Work out:

Hrs	Mins
1 8	2 4
- 7	5 3

A. 10 hours 31 minutes
B. 11 hours 31 minutes
C. 11 hours 29 minutes
D. 11 hours 30 minutes

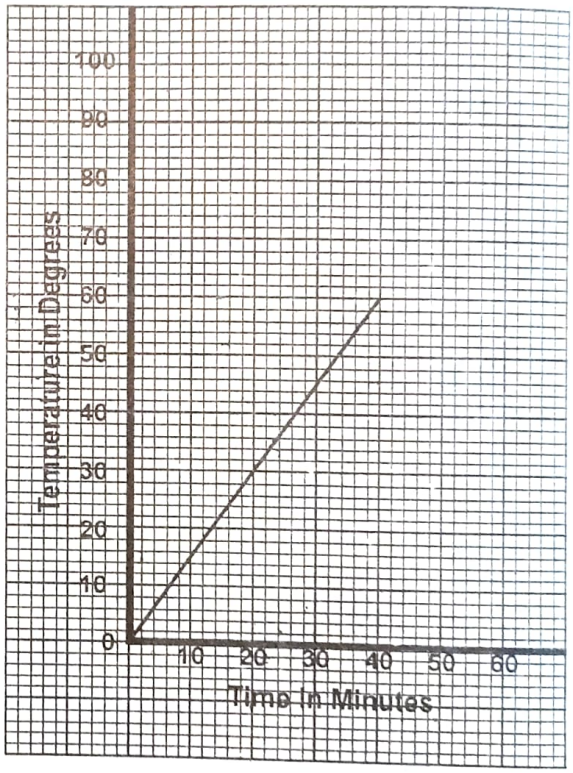
46. How many packets of biscuits measuring 8cm by 6cm by 4cm can be packed in a carton measuring 32cm by 18cm by 12cm?
A. 24 B. 36
C. 48 D. 72

47. Faith bought 30 mangoes. She later found that $^{1}/_{5}$ of them were rotten. What percentage of the oranges were good?
A. 64% B. 75%
C. 72% D. 80%

48. What is **48** written in Roman numerals?
A. XIVIII B. XLVIII
C. XLVII D. XILVIII

49. Change 72km/h to m/s
A. 20m/s B. 25m/s
C. 36m/s D. 24m/s

50. The graph below shows the temperature rise of a liquid boiled over a period of time.



How many degrees were registered after 30 minutes?
A. 5°C B. 45°C
C. 35°C D. 47°C