

GIDEONS ELITE BOYS CENTRE OF EXCELLENCE

P.O BOX 583-20300 NYAHURURU

DECEMBER-2024 ASSIGNMENT

THIS ASSIGNMENT WILL COVER 70% OF OPENER EXAM.

ALL QUESTIONS SHOULD BE ANSWERED IN THE EXERSISE BOOK

MATHEMATICS FORM 1-2024 Website: www.gideonseliteschools.sc.ke

Email: gideonseliteboys@gmail.com Contact: +254 710 787845 or +254 735 528 013

FORM ONE TERM TWO HOLIDAY ASSIGNMENT

30/07/2024

Name: Adm No: Class:

1. Without using a calculator evaluate (3 marks)

$$\frac{-2(-5 + 8) - 9 \div 3 - 5}{-3 \times -5 + -2 \times 4}$$

2. (a) use mathematical tables to find the:
- (i) The square of 86.46 (1 mark)
- (ii) The reciprocal of 27.56 (1 mark)

3. Simplify the following expression by reducing it to a single fraction. (3 marks)

$$\frac{2x - 3}{3} - \frac{x - 2}{2} - \frac{1 - x}{4}$$

- Use the prime factors of 1764 and 2744 to evaluate (3 marks)

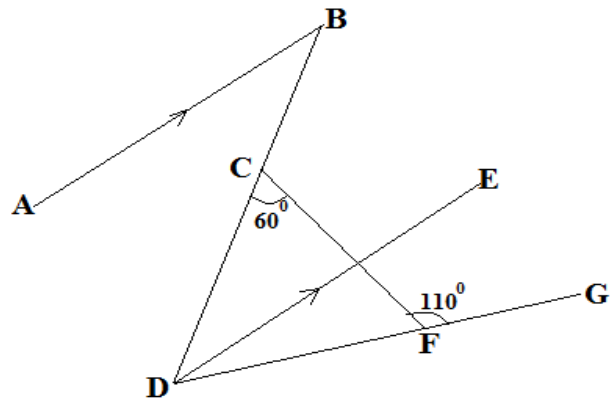
$$\frac{\sqrt{1764}}{\sqrt[3]{2744}}$$

4. Three bells ring at regular interval of 9 min, 15 min and 21 min. The bells ring at 5.45 p.m. By 10.00 a. m next day, how many times will they have rung together? (3 marks)
5. Write the following numbers in word. (2mks)
- (a) 654,444
- (b) 5,003.02

6. In the figure below AB is parallel to DE. DE bisects angle BDG, angle DCF = 60° and angle CFG = 110°.

Find,

- a) $\angle CDF$ (2 marks)
- b) $\angle ABD$ (2 marks)



Find the missing digit if

- i) 8_919 is divisible by 11
- ii) 199_8 is divisible by 9

(2mks)

7. If the recurring decimal 0.151515.... is expressed as a ratio of whole number $\frac{a}{b}$ in the **lowest terms**, what is the value of $b - a^2$
8. A bank buys and sells foreign currency as shown

| | Buying (ksh) | (Selling ksh) |
|--------|--------------|---------------|
| 1 Euro | 84.15 | 84.26 |
| 1 USD | 84.64 | 85.00 |

A tourist arrived in Kenya with 4000 Euros. He converted all the Euro to ksh. While in Kenya he spent a total of ksh 18950 and then Converted the remaining Kenya shillings to us Dollars. Calculate the amount he received in dollars.

9. Evaluate without using mathematical table (3mks)

$$\frac{1.9 \times 0.032}{20 \times 0.0038}$$

10. John, James and peter shared the profit from their business in the ratio 3:7:9 respectively. If James received Ksh.63,000, how much profit did the business make.
11. A wall clock that gains 20 seconds after every hour was set to read the correct time on Tuesday at 03 25Hrs. Determine the time the wall clock will read on Thursday 0325h. (3marks)
12. A number m is formed by writing all prime numbers between 0 and 10 in ascending order while a number n is formed by writing all square numbers between 0 and 10 in descending order. Find $m-n$
13. The interior angle of a regular polygon is 108° larger than the exterior angle. How many sides does the polygon has?
14. Express as a fraction (3mks)
 $2.\dot{8}\dot{3}$
4. Solve the equation (3mks)
 $\frac{x+1}{2} + \frac{2x+1}{2} = 9$
5. Use the square root and square tables to find the value of
- a) $\sqrt{0.002187}$ (2mks)
- b) 314.6^2 (2mks)
6. A Kenyan bank buys and sells foreign currencies at the exchange rate shown below . (3mks)
- | Selling (Ksh) | | |
|---------------|-------|-------|
| 1Euro | 150.0 | 150.5 |
| 1 US Dollar | 95.5 | 100.0 |
- An American tourist arrived in Kenya with 20,000 Euros. He converted the Euros to Kenya shillings at a bank. He spent Ksh 200,000 while in Kenya and converted the remaining Ksh into us Dollar.
 Calculate amount in Dollar that he received. (3mks)
8. Arrange in a descending order (3mks)
 $\frac{4}{9}, \frac{7}{18}, \frac{1}{2}, \frac{2}{5}$
9. Factorise completely (2mks)
 $4ax + 4ay - 4bx - 4by$
10. A farmer has 2 water tanks, one has a capacity of 200 litres while the other 360 litres. The farmer uses the same container to fill each of the 2 tanks in an exact number of times. Find the least number of times it would take to fill both tanks.
11. On a market day, a sales woman bought 2 bags of potatoes and 3 bags of carrots at a total cost of sh 3450. In the following day she paid sh 150 less after buying 3 bags of potatoes and 2 bags of carrots. Find the cost of one bag of each item.
12. Given that $a = -2$, $b = 1$, $c = -4$ and $d = 5$ (3mks)
 Find the value of $-a^2 + c(b-d)$
 $\underline{\underline{-b^2 - d^2}}$
13. The cost of providing a commodity consists of transport, labour and raw materials in the ratio 8:4:12 respectively. If the transport cost increases by 12% labour cost by 18% and raw materials by 40% , find the percentage increase of producing the new commodity (4mks)
14. The density of liquid x is 2.6g/cm^3 and that of liquid Y is 1.8g/cm^3 . Liquid x is 0.89kg and liquid y is 0.5 kg. If x and y are mixed together, find the density of the mixture in g/cm^3 . (3mks)
15. Mutiso made a profit of 25% by selling a pair of shoe at Ksh. 1500. What percentage profit would he have made if he sold the same shoe at Ksh. 1600. (3mks)
16. The cost of one litre of petrol is Ksh 180. John's vehicle covers 12km on one litre of petrol. He used Ksh 2790 on petrol to travel from town A to town B. Jane's vehicle consumes 12 litres of petrol for every 100km travelled. Calculate the amount of money that Jane would use to travel from town A to B on the same road. (4mks)
17. Two business partners Musa and Gitau contributed sh 112000 and 128,000 respectively to start a business. They agreed to share their profits as follows
- a) 30% to be shared equally
- b) 30% to be shared in the ratio of their contributions
- c) 40% to be retained in running of the business
- If their profit for the year 2021 was 86400. Calculate
- i). 30% of the profit. (2mks)
- ii). Amount received by Musa. (3mks)
- iii). Amount received by Gitau. (3mks)
- iv). The amount retained for running the business. (2mks)
18. Mary is x years old. Her sister Jane is 7 years older than her. Their mother is twice as old as Jane and their father is three times as old as Mary.

- (a). Write an expression in terms of x for ;
- (i). Jane's age. (1mk)
- (ii). Mother's age. (1mk)
- (b). The sum of the ages of the four members of the family is 112, find;
- (i). Mary's age (3mks)
- (ii). The difference between the father's age and Jane. (3mks)
- (iii). The mother's age in 2 years time. (2mks)