



KITH AND KIN INTERNATIONAL COLLEGE

7/11 Kaoli Olusanya Street, Owode Ibeshe, Ikorodu, Lagos State.

FIRST TERM EXAMINATION 2025/2026 ACADEMIC SESSION

NAME					
SUBJECT	MATHEMATICS	CLASS	JSS 3	DURATION	1 ½ HOUR

Part A: Multiple choice (50 marks)

Answer all questions: *Each* question is followed by *four* options lettered A to D. Find out the correct option for *each* question and *shade in pencil* on your answer space which bears the same letter as the option you have chosen. Give only *one* answer to *each* question.

1. Express 48 as a product of its prime factors.

A. $2^4 \times 3$
 B. $2^3 \times 3^2$
 C. $2^2 \times 3^3$
 D. $2^5 \times 3$

2. Convert 23_{10} to base 2.

A. 10111_2
 B. 11011_2
 C. 11101_2
 D. 10101_2

3. Simplify: $(3x + 2) - (x - 5)$

A. $2x - 3$
 B. $2x + 7$
 C. $3x + 7$
 D. $3x - 2$

4. What is the perimeter of a rectangle with length 10 cm and width 4 cm?

A. 14 cm
 B. 28 cm
 C. 40 cm
 D. 48 cm

5. What is the probability of rolling a number greater than 4 on a fair six-sided die?

A. $1/3$
 B. $1/2$
 C. $2/3$
 D. $1/6$

6. Express 341_{six} as a number in base 10

A. 254
 B. 134
 C. 133
 D. 123

7. If 4 pens cost ₦800, how much will 7 pens cost?

A. ₦1200
 B. ₦1400
 C. ₦1600
 D. ₦1800

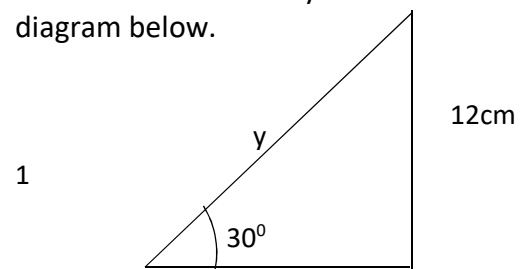
8. A sum of ₦10,000 is invested at 5% per annum compounded annually for 2 years. What is the amount?

A. ₦10,500
 B. ₦10,750
 C. ₦11,025
 D. ₦11,250

9. Expand $(2x - 3)(3x + 5)$

A. $6x^2 + 4x + 15$
 B. $6x^2 - x - 15$
 C. $6x^2 + x - 15$
 D. $6x^2 + 4x - 15$

10. Calculate the value of y in the diagram below.

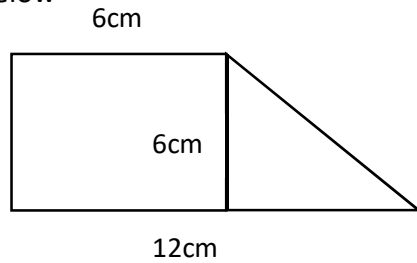


- A. 24cm
B. 12cm
C. 6cm
D. 3cm
11. Simplify: $5x + (2x - y) - 4y$
A. $7x - 3y$
B. $7x + 3y$
C. $7x - 5y$
D. $7x + 5y$
12. Calculate the compound interest on N5000.00 for 2 years at 10% per annum.
A. N1 050.00
B. N1 500.00
C. N2 050.00
D. N2 500.00
13. Solve the inequality:
 $4(2 - x) < 3(3 - 2x)$
A. $x < -\frac{1}{2}$
B. $x < \frac{1}{2}$
C. $x > \frac{1}{2}$
D. $x > -\frac{1}{2}$
14. A prefect is to be selected from a class of 16 girls and 14 boys. What is the probability that the prefect is girl?
A. $\frac{1}{16}$
B. $\frac{7}{8}$
C. $\frac{4}{15}$
D. $\frac{8}{15}$
15. Simplify: $(2\frac{3}{5} - 1\frac{2}{3}) \times \frac{5}{8}$

- A. $\frac{1}{12}$
B. $\frac{5}{12}$
C. $\frac{7}{12}$
D. $\frac{11}{12}$

16. Find the HCF 90 and 300 using index notation.
A. $2 \times 3 \times 5$
B. 2×3^2
C. $3^2 \times 5$
D. 3×5^2
17. The plane shape with only a pair of parallel side is called?
A. circle
B. kite
C. trapezium
D. triangle
18. The sum of two numbers is 14. Five times the first number added to one-third of the second number is 28. Find the two numbers
A. 4 and 10
B. 5 and 9
C. 6 and 8
D. 7 and 7
19. Mohammed travels in a car from Lagos to Ibadan. His car uses 25 liters of fuel for a distance of 200 km. how many liters of fuel will be needed for a distance of 300km.
A. 39.5 liters
B. 38.5 liters
C. 37.5 liters
D. 36.5 liters
20. Find the highest common factors of $18x^2y$, $12xy$ and $24xy^2$
A. $6x^2y^2$
B. $6x^2y$
C. $6xy^2$
D. $6xy$

21. Calculate the area of the diagram below



- A. 36cm^2
 B. 48cm^2
 C. 54cm^2
 D. 72cm^2
22. Find the value of x^0 in the figure below
-
- A. 10^0
 B. 15^0
 C. 20^0
 D. 25^0
23. If x varies directly as T and $x = 1000$ when $T = 400$, find x when $T = 500$
- A. 1250
 B. 12500
 C. 125000
 D. 1250000
24. The cost of 3 kg of sugar is ₦900. What is the cost of 5 kg of sugar?
- A. ₦1200
 B. ₦1500
 C. ₦1800
 D. ₦2100
25. Find the simple interest of on ₦8000.00 for 3 years at 3.5% per annum
- A. N480
 B. N840
 C. N4800

- D. N8400
26. Ayo earns ₦50,000 monthly and he spends ₦35,000 altogether. If he saves the rest, find the percentage of his saving
- A. 70 %
 B. 50 %
 C. 30 %
 D. 15 %
27. A man can type 21 words per minute. How long will take him to types 3780 words?
- A. 4 hours
 B. 3 hours
 C. 2 hours
 D. 1 hour
28. Simplify: $64^{\frac{1}{2}} \times 36^{\frac{1}{2}} \times 10^0$
- A. 480
 B. 384
 C. 96
 D. 48
29. A certain amount of food stuff will be consumes by 15 persons in 4 days. How long will it take if it is shared among 6 persons eating at the same rate?
- A. 5 days
 B. 10 days
 C. 15 days
 D. 60 days
30. Mrs. Koledowo invested ₦1 082 000.00 in 2010. Rewrite this amount correctly to the nearest million
- A. N2 million
 B. N1.1 million
 C. 1.08 million
 D. 1 million
31. Factorize: $x^2 + 7x + 12$
- A. $(x + 3)(x + 4)$
 B. $(x + 2)(x + 6)$

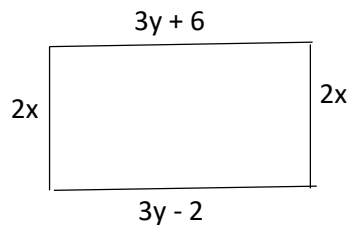
C. $(x + 1)(x + 12)$

D. $(x + 5)(x + 2)$

32. The diagonals of a rhombus are 8cm and 10cm respectively. Find the area of rhombus.

- A. 40cm^2
 B. 45cm^2
 C. 50cm^2
 D. 55cm^2

33. The perimeter of the shape shown below is (units in cm)



- A. $(4x + 4y)$ cm
 B. $(4x + 6y + 4)$ cm
 C. $(6y - 2)$ cm
 D. $(4x + 6y - 4)$ cm

34. Correct 45 775 to 1 significant figure

- A. 50 000
 B. 5 000
 C. 500
 D. 50

35. What is the coefficient of x in $4x^2 + 8x - 3$?

- A. 8
 B. 5
 C. 4
 D. -3

36. Which of the following angles **cannot** be constructed using a ruler and a pair of compasses only? _____

- A. 45°
 B. 60°
 C. 90°
 D. 115°

37. The surveyor bearing of 300° is equivalent to a compass bearing

- A. N 30° W
 B. N 60° W
 C. N 60° E
 D. N 30° E

38. Factorize $y^2 - z^2$

- A. $(y + z)(y - z)$
 B. $(y - z)(y - z)$
 C. $(y + z)(y - z)$
 D. $(y - z)$

39. How many vertices has a cuboid?

- A. 12
 B. 10
 C. 8
 D. 6

40. Factorize: $x^2 - 9$

- A. $(x - 3)(x + 3)$
 B. $(x - 3)(x - 3)$
 C. $(x + 3)(x + 3)$
 D. $(x - 9)(x + 1)$

41. If 6 workers can complete a job in 8 days, how many days will 4 workers take to complete the same job?

- A. 6 days
 B. 10 days
 C. 12 days
 D. 14 days

42. Two angle of a right angled triangle are $(x + 2)^\circ$ and $(2x + 4)^\circ$. find the value of x

- A. 28°
 B. 30°
 C. 45°
 D. 56°

43. Find the square root of 3136 in index form

- A. $2^3 \times 7$
 B. $3^3 \times 7$

- C. 3×7
D. $2^6 \times 7^2$
44. If angle A measure $(20 - 5x)^\circ$, the complementary angle to A measures....
A. $70 - 5x$
B. $70 + 5x$
C. $20 - 5x$
D. $20 + 5x$
45. Given that $P = 4 - 9x^2$ and $Q = 2 + 3x$, what is $P + Q$?
A. $(6 + 9x)(x - 1)$
B. $(6 + 9x)(1 + x)$
C. $(6 + 3x)(1 - x^2)$
D. $(2 + 3x)(1 - x)$
46. What does the digit 9 stands for in 159.087?
A. Hundredth
B. Tenth-
C. Tens
D. Unit
47. Find the product of 1110_{two} and 101_{two}
A. 1100100_{two}
- B. 1000111_{two}
C. 1011001_{two}
D. 1000110_{two}
48. A pair of lines which do not intersect at any point are called?
A. perpendicular
B. parallel
C. concurrent
D. intersecting
49. Factorize $6a^2b - 13ab^2$
A. $ab(6-13a)$
B. $ab(6b-13a)$
C. $ab(6a-13b)$
D. $ab(6-13b)$
50. If y varies inversely as x , and $y = 8$ when $x = 2$, find y when $x = 4$.
A. 2
B. 4
C. 6
D. 8



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Section B

Answer any four questions {each question carries equal marks}

1.
 - a) Convert 101010_2 to base five
 - b) Solve the equation $\frac{2(2y+1)}{3} = \frac{y-3}{2}$
 - c) The time taken to paint a wall varies inversely as the number of painters. If 6 painters can paint it in 8 hours. How long will 12 painters take?
2.
 - a) A motorcycle uses 15 liters of fuel for a journey of 75km. What distance will 40 liters cover by the same motorcycle?
 - b) Write 0.37373737... as rational numbers.
 - c) Solve $\frac{4x-5}{5} + \frac{3}{5} \geq 3$
3.
 - a) Expand $(2x + y)(3m - n)$
 - b) 4 men can do a certain work for 10 days. How long would it take 8 men to do the same work?
 - c) If y varies jointly as x and z, and y=30 when x=2, z=5. Find y when x=3, z= 4?
4.
 - a) Evaluate: $141_6 + 233_6$ and covert the result to base 10
 - b) Calculate the simple interest on N40, 000 in 4 years at 5% per annum.
 - c) Factorize $3a - cb - 3b + ac$
5.
 - a) Evaluate: $1110_2 \times 11_2$
 - b) The circumference, **C** of a circle is directly proportional to its diameter, **d** and when C=66, d= 22. Find the value of d when C= 44.
 - c) Find the H.C.F of the algebraic expressions $15xy^2$ and $25x^2y$
6.
 - a) Convert 233_6 to base 2
 - b) Make **u** the subject of the formula in
$$E = \frac{m}{2g} (v^2 - u^2)$$
 - c) Factorize the algebraic expressions: $x^2 + 6x + 9$