

155

0570 MATHEMATICS 1

WOURI COMMON MOCK EXAMINATION

GENERAL CERTIFICATE OF EDUCATION EXAMINATION



MARCH 2020

ORDINARY LEVEL

Centre Number	
Center Name	
Candidate Number	
Candidate Name	

0570 MATHEMATICS 1 : MULTIPLE CHOICE QUESTIONS PAPER

Time Allowed: One and a half hour

INSTRUCTIONS TO CANDIDATES:

TELEPHONE ARE NOT ALLOWED IN THE EXAMINATION ROOM

1. Use a soft HB pencil throughout this examination.
2. Do not open this booklet until you are told to do so.
Before the examination begins:
3. Check that this question booklet is headed "Ordinary Level – 570 Mathematics Paper I".
4. Insert the information required in the spaces above.
5. Without opening the booklet, pull out the answer sheet carefully from inside the front cover of this booklet. Take care that you do not crease or fold the answer sheet or make any marks on it other than those asked for in these instructions.
6. Insert the information required in the spaces provided on the answer sheet using your HB pencil:
Candidate name, Centre Number, Candidate Number, Subject Code Number and Paper Number,
How to answer questions in this examination:
7. Answer **ALL** the 50 question in this examination. All question carry equal marks.
8. Non-programmable calculators are allowed.
9. For each question there are four suggested answers, A, B, C and D. Decide which answer is correct. Find the number of the question on the answer sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen. For example, if A is your correct answer, mark C as shown below:

~~[A]~~ [B] [C] [D]
10. Mark only one answer for each question. If you mark more than one answer, you will score zero for that question. If you change your mind about an answer. If you change your mind about an answer, erase the first mark carefully, and then mark your new answer.
11. Avoid spending much time on any question. If you find a question difficult, move to the next question. You can come back to this question later.
12. Do all rough work in this booklet using, were necessary, the blank spaces in the question booklet.
13. You must sot take this booklet and answer sheet out of the examination room.
All question booklets and answer sheets will be collected at the end of the examination.

1. That value of x for which $1 - 2x = 11$ is

- A. 5
- B. -5
- C. 6
- D. -6.

2. The number 0.0002×0.24 in standard form is

- A. 0.000048
- B. 48×10^6
- C. 4.8×10^5
- D. 4.8×10^{-5}

3. The number 415 sbase 6 in base 10 is

- A. 415
- B. 69
- C. 150
- D. 155

4. The value of $x \in \mathbb{Z}$ for which $(2x+1)(x+3)=0$ is

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

5. The set of values of x for which $x^2 - 4 \leq 0$ is

- A. $x < 2$
- B. $x \leq 2$
- C. $-2 \leq x \leq 2$
- D. $x \geq 2$.

6. Pa Jojo on his sick bed decides to divide his total savings of 1000000fcfa to his two sons Mbella and Orock equally. On receipt of his own share, Orock gives $\frac{1}{4}$ of this share to his darling wife and uses the remaining amount to start a business. The amount Orock used to start a business should be

- A. 375,000fcfa
- B. 125,000fcfa
- C. 250,000fcfa
- D. 500,000fcfa

7. One Sunday during a deliverance session in AGCOM church the pastor discovered that 199867 Christians attended the service. This number to the nearest thousand is

- A. 190000
- B. 199000
- C. 200000
- D. 199800

8. Given two statements p : Paul is a student and q : Paul plays football, the compound statement 'Paul is a student that plays football' is denoted by

- A. $p \rightarrow q$
- B. $p \leftrightarrow q$
- C. $p \vee q$
- D. $p \wedge q$

9. $\frac{1}{243} \equiv$

- A. 5^3
- B. 5^{-3}
- C. 3^{-5}
- D. 3^5

10. Given that $P = \{x: -3 < x < 4\}$, $x \in \mathbb{Z}$ and

$$Q = \{x: -3 < x \leq 4\}, P \cap Q =$$

- A. $\{x: -3 < x < 4, x \in \mathbb{Z}\}$
- B. $\{x: -3 < x \leq 4, x \in \mathbb{Z}\}$
- C. $\{x: -2 \leq x \leq 4, x \in \mathbb{Z}\}$
- D. $\{x: -2 \leq x \leq 3, x \in \mathbb{Z}\}$

11. The cardinality of the set $\{a, b, c, d, e\}$ is

- A. $\{5\}$
- B. 5
- C. $\{a, b, c, d, e\}$
- D. 2^5

12. When a relation R defined on a set E is such that $\forall x \in E, xRx$, then R is said to be

- A. transitive
- B. symmetric
- C. reflexive
- D. anti-symmetric.

13. Given that the function f is defined on a set R of real numbers by $f: x \mapsto 1 - \frac{1}{2}x$ $f(-2) =$

- A. 1
- B. 0
- C. -1
- D. 2

14. Given the vectors $a = 2i - j$ and $b = -i - 3j$ and that $a - c = b$, vector c is

- A. $3i + 2j$
- B. $i - 4j$
- C. $-3i + 2j$
- D. $i + 4j$

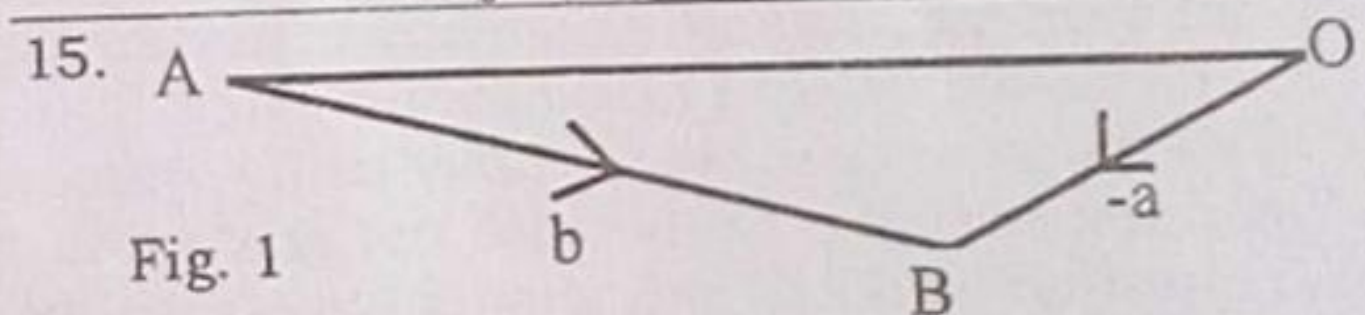


Fig. 1

In fig 1 above, given that vector $OB = -a$ and $AB = b$, then vector AO in terms of a and b is

- A. $a + b$
- B. $a - b$
- C. $b - a$
- D. $-a - b$.

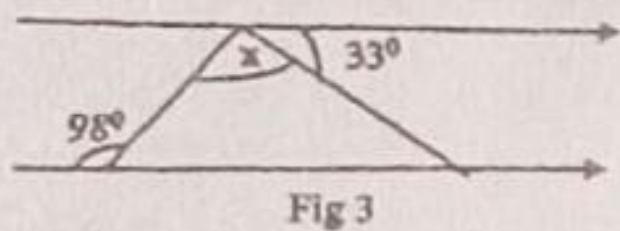
16. The line $3x - 2y = 6$, cut the x -axis at the point

- A. (2,0)
- B. (0,2)
- C. (3,0)
- D. (0,3)

17. A five sided polygon is called a

- A. quadrilateral
- B. hexagon
- C. pentagon
- D. decagon.

18.



In figure 3 above angle x is

- A. 131°
- B. 98°
- C. 33°
- D. 65°

19. The volume of a cone is

- A. $\frac{1}{3}$ the volume of cuboid
- B. $\frac{1}{3}$ the volume of cylinder
- C. $\frac{1}{2}$ the volume of a cuboid
- D. $\frac{1}{2}$ the volume of a cylinder.

20. How much does it cost to pain the external walls if a house with external dimension 15m by 12m by 4m, given that the cost of painting a square meter is 6000fcfa.

- A. 288000fcfa
- B. 360000fcfa
- C. 1296000fcfa
- D. 648000fcfa.

21. Given that $\sin x + \frac{1}{2} = 1$, the value of x is

- A. 60°
- B. 30°
- C. 0.5
- D. 50

22. A little child standing on a table of height 1.25m,

views a toy $2\sqrt{3}m$ away from the tale and on same horizontal ground with the table through angle of depression of 60° . The height of this child should be

- A. 2m
- B. 1.5m
- C. 0.75m
- D. 1.25m.

23. The distance between the points P(3,-4) and Q(7,-1) is

- A. 2
- B. 4
- C. 3
- D. 1

24. The function f is defined by

$f: x \rightarrow 3x+k$, given that $f(2) = 2$ then the value for k is

- A. 2
- B. -4
- C. 6
- D. -1

25. Given that $3i=kj$ is parallel to, $-2i+6j$, then the value of k is

- A. 6
- B. 9
- C. 3
- D. 8

26. The coordinates of the point where the line $2y-3x+4=0$ cuts the y-axis

- A. (0,-2)
- B. (0,4)
- C. (-3,2)
- D. (2,0)

27. Given that $\sin A = \frac{5}{12}$ and that $0^\circ < A < 90^\circ$ the

value of $\cot A$ is

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

28. The angle of elevation of a bird on top of a tree 35m away from an observer is 60° , then the distance between the bird and the observer is

- A. $\frac{70\sqrt{3}}{3}$
- B. 70m
- C. 35m
- D. 60m

29. The determinant of the matrix $A = \begin{pmatrix} -2 & 3 \\ -1 & 1 \end{pmatrix}$ is

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

30. A trader makes 10% profit on the cost price by selling on article for 88,000 FCFA. The cost price of the article is

- A. 79 200fcfa
- B. 72 000fcfa
- C. 80 000fcfa
- D. 78 000fcfa

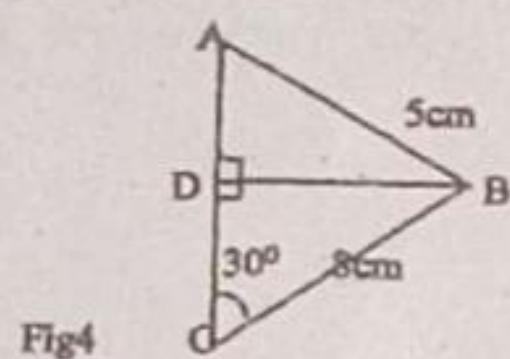
31. An equation of the line which is perpendicular to the line $3y+x=16$ and passes through the point p(2,3) is

- A. $y-3x=-3$
- B. $3y-x=6$
- C. $y-3x=-9$
- D. $3y-x=-3$

32. Think of a number, square it, add three times the number to the square and then finally subtract 10 from the result. If the finally answer is 0, then one possible value of the number is

- A. -2
- B. 5
- C. 2
- D. 0

33.



In fig 4 above $BC=8\text{cm}$, $AB=5\text{cm}$ and $\angle ACB=30^\circ$, the length $AD=$

- A. 4cm
- B. 2,5cm
- C. 3cm
- D. 6,5cm.

34. If a bag contains 3 red and 4 yellow balls, two balls are drawn at random without replacement. The probability that they have the same colour is

- A. $\frac{3}{7}$
- B. $\frac{4}{21}$

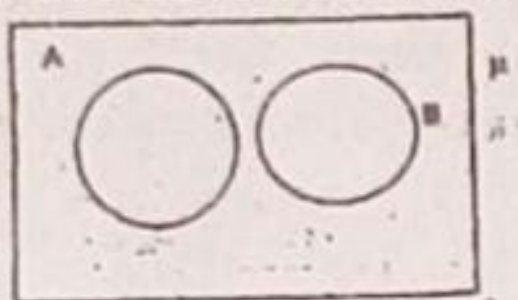
37. Given the Venn diagram below, the combination that best describes the sets is

A. $A \cap B = \emptyset$

B. $A \cap B = 0$

C. $A \subset B - \emptyset$

D. $A' = B'$



38. Given that $T:(x,y) \rightarrow (x-y), (2x+3y)$ and that the point A has image $A' (0,5)$ under T. The coordinates of A is

- A. (1,-1)
- B. (1,1)
- C. (-1,-1)
- D. (-1,1)

39. The functions g and f are defined as $g:x \rightarrow x-1$ and $f:x \rightarrow 2x$ then the composite function fg is

- A. $2x-1$
- B. $3x-1$
- C. $3x+1$
- D. $2x-2$

40. Given that a point A(4,-1) is reflected to the point A'(-1,4), the equation of the mirror line is

- A. $Y=-x$
- B. $y=x$
- C. $x+y=1$
- D. $x+y=-1$

41. A bus leaves Bamenda for Yaoundé at 9:30am. Given that it took 5 hours 45 minutes to do the journey, then it will arrive Yaoundé at

- A. 14:75
- B. 5:45
- C. 14:45
- D. 15:15

- C. $\frac{4}{7}$
- D. $\frac{7}{21}$

35. Two points A and B have position vectors $OA = -2i+3j$, $OB=4i+5j$ then $|AB|$ is

- A. $\sqrt{8}$
- B. $2\sqrt{2}$

- C. 10
- D. 20

36. Given that $62_x=44_{10}$ then the value of x is

- A. 8
- B. 7
- C. 9
- D. 10

42. Given that $k+1, 2k-1, k+5$, are three consecutive terms in an A.p, then the value of k is

- A. 4
- B. 8
- C. 2
- D. 5

43. Given that x^2-2x^2+kx+6 , is exactly divisible by $(x+2)$, then the value of k is

- A. $fw=k$
- B. $f=\frac{w}{k}$

C. $k=\frac{f}{w}$

D. $w=fk$

44. The mean of 5 numbers is 7, when a sixth number is added the mean becomes 8. Thus the sixth number is

- A. 15
- B. 13
- C. 35
- D. 7

45. The marks obtained by students in a Mathematics test were recorded on a table as shown below.

Marks (x)	0	2	5	7	9
N° of students (f)	3	5	9	11	2

The total number of students in the class is

- A. 23
- B. 15
- C. 30
- D. 150

46. In a test marked out of 40, a student scored 70% of the marks. Her score was

- A. 10
- B. 30
- C. 28
- D. 35

47. Given that $\left(\frac{64}{25}\right)^{-1/2} =$

- A. $8/5$
- B. $32/12,5$
- C. $5/8$
- D. $4/5$.

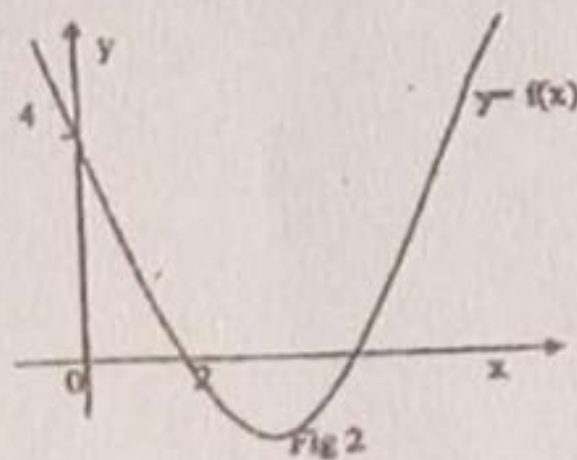
48. If a statement p is true, then its negation is

- A. also true
- B. false
- C. neither true or false
- D. the inverse.

49. The area bounded by the x-axis, the y-axis and the line $x+y=4$ is

- A. 4sq. units
- B. 16sq. units
- C. 10sq. units
- D. 8sq. units.

50.



Given that the graph of the function $y=f(x)$ in the figure above is given by $y=x^2-kx+4$, the value of k is

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

STOP!

GO BACK AND CHECK YOUR WORK!