CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

0570 MATHEMATICS 1

JUNE 2019 ORDINARY LEVEL

Centre Number	
Centre Name	
Candidate Identification Number	
Candidate Name	

Mobile phones are NOT allowed in the examination room.

MULTIPLE CHOICE QUESTION PAPER

One and a half hours

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOED TO DO SO.

Before the examination begins:

3. Check that this question booklet is headed "Ordinary Level - 0570 Mathematics 1"
4. Fill in the information required in the spaces above.
5. Fill in the information required in the spaces provided on the answer sheet using your HB pencil:
   Candidate Name, Exam Session, Subject Code and Candidate Identification Number.
   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.

How to answer the questions in this examination

6. Answer ALL the 50 questions in this Examination. All questions carry equal marks.
7. Calculators are allowed.
8. Each question has FOUR suggested answers: A, B, C and D. Decide which answer is appropriate. 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 C is your correct answer, mark C as shown below:
   [A] [B] [C] [D]
9. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, then mark your new answer.
10. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
11. Do all rough work in this booklet using the blank spaces in the question booklet.
12. At the end of the examination, the invigilator shall collect the answer sheet first and then the question booklet. DO NOT ATTEMPT TO LEAVE THE EXAMINATION HALL WITH IT.

1. When $\frac{1}{2}$ of $6-(\frac{3}{2} \times 4)$ is evaluated, the result is

A 3
B 6
C 0
D -3

2. The value of 8 in 24.86 is

A 8
B $\frac{8}{10}$
C $\frac{8}{100}$
D $\frac{9}{10}$

3. Given that -5 < 2, the symbol "<" means

A: Greater than
B: Greater than or equal to
C: Less than
D: Less than or equal to

4. Simplifying $\frac{2}{7} + \frac{2}{5}$ gives

A $\frac{4}{35}$
B $\frac{12}{35}$
C $\frac{4}{12}$
D $\frac{24}{35}$

5. The number 163.35 x 10^{-3} expressed in standard form is

A 1.6335 xl0^{-1}
B: 16335 x 10^{-2}
C 1.6335 x 10^{1}
D 16.335 x 10^{-2}

6. Expressing 204,865 to three significant figures gives

A 205,000
B 204,800
C 204,900
D 200,900

7. A student left home and took 45 minutes to arrive school at 8:00 am. The time the student left from home is

A: 7:45 am
B: 6:15 am
C: 7:15 am
D: 8:45 am

8. A woman paid 120,00FCFA for 6 kg of fish. The cost of $\frac{1}{2}$ Kg of the fish is

A 3,000FCFA
B 1,000FCFA
C 6,000FCFA
D 2,000FCFA

9. On the map of Cameroon, the distance between Bali and Batibo is 11 cm. Given that the scale of the map is 1:200,000, the actual distance between Bali and Batibo, in km, is

A 2 km
B 2.2 km
C 220 km
D 22 km

10. Given the sets: P = {1,2,3,4, 5} and Q = {2, 5}. The relationship between the sets P and Q is

A $P \cup Q = Q$
B $Q \subset P$
C $P \cap Q = \varnothing$
D $P \subset Q$

---

11. The number of subsets of the set T = {a, b, c} is

A 3
B 6
C 8
D 9

---

12. Given the statements

p: Ben studies hard
q: Ben will pass his exams

The statement:
"If Ben studies hard then he will pass his exams" is represented by

A $p \Rightarrow q$
B $p \vee q$
C $\neg p \wedge q$
D $p \wedge q$

---

13. Given the truth table in figure 1, Y represents

p	q	Y
T	T	T
T	F	F
F	T	F
F	F	F

Figure 1

A $p \vee q$
B $\neg p \wedge q$
C $p \wedge q$
D $p \Rightarrow q$

14. Given the function f: $x \mapsto 2x - 1$, the value of f(-3) is
A 5
B 7
C -5
D -7

15. The inverse of the function f(x) = 3x is
A $\frac{x}{2}$
B $\frac{3}{x}$
C $\frac{3x}{2}$
D $\frac{2}{3x}$

---

16. given the mapping in figure 2, the range set is
A. {2, 3, 5}
B. {2, 5, 8}
C. {1, 2, 3, 4}
D. {1, 2, 5, 5, 8}

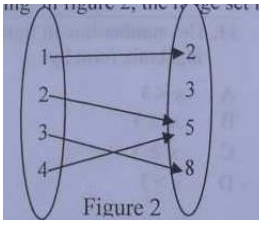
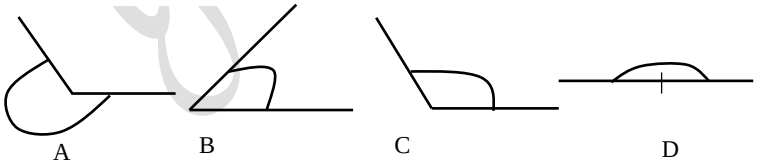
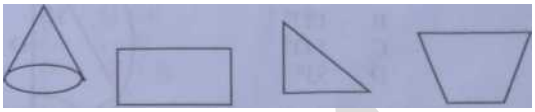


Figure 2

17. The diagram that represents an acute angle is


A B C D

18. The figure that represents a solid is


A B C D

19. The sum of the exterior angles of any polygon is
A 90°
B 180°
C 360°
D 270°

20. The diagrams in figure 3 show two similar triangles. The area, P, of the larger one is
A 16
B 12
C 24
D 72

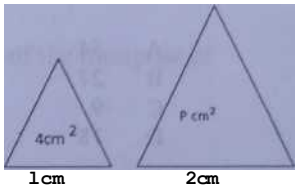


figure 3

In figure 4, the arms of the angle 0, are
A P and Q
B PQ and PR
C QP and QR
D PQR and RQP

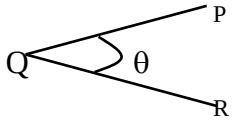


Figure 4

In figure 5, the value of angle x is
A 150°
B 60°
C 45°
D 30°

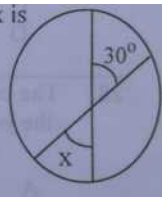


Figure 5

23. In figure 6, O is the centre of the circle. The value Of y is

A 37°
B 127
C 143
D 53°

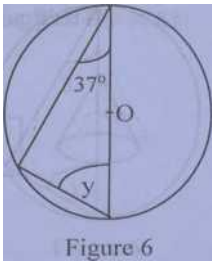


Figure 6

24. The diameter of a circle is 28 cm. The circumference, in cm, of the circle is

A 7
B 88
C 14
D 56

25. Figure 7 is a cube of side 3. cm. The total surface area in cm^2 is:

A 54
B 27
C 9
D 18

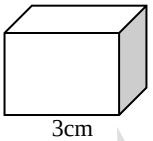
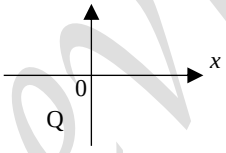


Figure 7

26. Figure 8 represents a Cartesian plane. The quadrant in which Q is found is

A 1st quadrant
B 4th quadrant
C 2nd quadrant
D 3rd quadrant



27. The gradient of the line 2y - 4x = 3 is

A -2
B 4
C 2
D -4

28. The coordinates of the point where the curve cuts the y-axis, in figure 9, are given by

A (3,0)
B (0,-4)
C (-1,0)
D (2,-2)

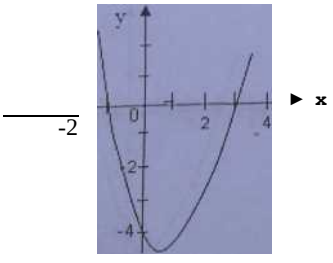


Figure 9

29. In the expression $3x^2$ — 15x, the common factor is

A $3x$
B 5
C $3x^2$
D 5x

30. Given the expression 8x + 2 — x + 8y, the like terms are

A 8x and 8y
B 8x and -x
C 2 and -x
D -8 and 8y

31. Given that y = -2 and x = 1, then the value of $y^2 + x + 1$ is

A 6
B 4
C -2
D 0

32. Given that $ab^2 = xy$, then b expressed in terms of a, x and y is

A. $\sqrt{xy - a}$
B. $\sqrt{\frac{xy}{a}}$
C. $\sqrt{\frac{a}{xy}}$
D. $\sqrt{a - xy}$

33. The number line in figure 10 can be represented in algebraic form by

A x <3
B x ≤ 3
C x ≥ 3
D x>3

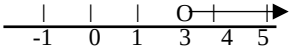


Figure 10

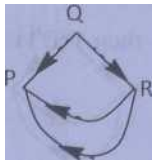
34. - The solution of the linear inequality 2x — 3 < 5 is

A x>4
B x ≤ 4
C x <4
D x ≥4

D

35. Figure 11, represents a network. The number of vertices are

A 1
B 2
C 3
D 4



Figure

36. The value of x in the equation $2^{2x} = 8$ is

A $\frac{2}{3}$
B 2
C 4
D $\frac{3}{2}$

37. In figure 12, PQR is a right angled triangle, the length of the side PR in cm is.

A 25
B -5
C 1
D .....

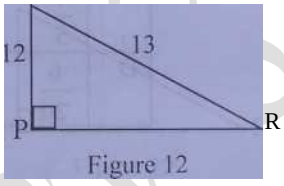


Figure 12

38. Given that $\sin\theta = \frac{3}{5}$, then $\tan\theta$

A $\frac{4}{5}$,
B $\frac{4}{5}$,
C $\frac{4}{5}$,
D $\frac{4}{5}$,

39. Figure 13, shows the angle of elevation of A from C as 50°. The angle of depression of G from A is

A	140°
B	50°
C	90°
D	40°

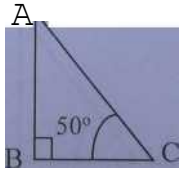


Figure 13

40. Given that $\overrightarrow{OP}$ =3i-5j and $\overrightarrow{OQ}$ = -2i + j, the vector $\overrightarrow{QP}$ is
A 5i— 6j
B 5i — 4j
C i — 4j
D -5i + 6j

41. Given the vector OP = i + j the direction of this vector is
A 30°
B 60°
C 45°
D 90°

42. Given that the vectors 6i + 15j and xi — 5j are parallel, the value of x is

A -2
B 2
C 3
D -3

---

43. Given that the matrix,

M = $\begin{pmatrix} 1 & 2 & 3 \\ 1 & 4 & 9 \end{pmatrix}$ The order of the transpose of M is

A. 3 x 2
B. 3 x 3
C. 2 x 3
D. 2 x 2

44.. Given .that M = $\begin{pmatrix} 3 & -2 \\ 4 & 0 \end{pmatrix}$ and N = $\begin{pmatrix} 1 & 3 \\ 2 & 5 \end{pmatrix}$ the value of M + N is

A. $\begin{pmatrix} 4 & 1 \\ 6 & 5 \end{pmatrix}$
B. $\begin{pmatrix} 4 & 5 \\ 6 & 5 \end{pmatrix}$
C. $\begin{pmatrix} 4 & -6 \\ 8 & 0 \end{pmatrix}$
D. $\begin{pmatrix} 4 & -5 \\ 8 & 0 \end{pmatrix}$

45. The point (5,3) when reflected in the line y = x. has image

A (2,3)
B (5,5)
C (5,-3)
D (3, 5)

46. The range of the distribution 6, 1, 5, 7, 8,4, 10 is

A 4

B 9

C 6

D $5\frac{6}{7}$

47. The modal class in the following frequency distribution table is

Weight	2 - 5	6 - 9	10 - 13	14 -17
frequency	3	5	1	2

A 14-17
B , 2 - 5
C 10 - 13
D 6 - 9

48. The middle quartile of a cumulative frequency curve is at the

A	75^{th} percentile
B	25^{th} percentile
C	50^{th} percentile
D	100^{th} percentile

49. Let E be an event. Given that $P(E) = \frac{1}{2}$ then P(E') is

A $\frac{1}{4}$
B 0.3
C $\frac{1}{5}$
D $\frac{2}{3}$

50. Given that 20 students wrote a test out of 10 marks as shown in the following table. The probability of having a student who scored more than 6 marks is

Mark, x	3	4	5	6	7	8
Number of students	2	3	6	4	3	2

A	$\frac{1}{4}$
B	$\frac{3}{20}$
C	1/5
D	$\frac{6}{20}$

STOP

GO BACK AND CHECK YOUR WORK