GOD THE ALMIGHTY

ADESOYE COLLEGE, OFFA

OUR VISION: To be a world class learning institution

ENTRANCE EXAMINATION INTO YEAR 7

SAMPLE MATHEMATICS PAPER

TIME ALLOWED: 1 HOUR 30MINUTES

NAME: _____

SCHOOL: _____

EXAM CENTRE:

_____

DATE OF EXAM:

_____

Instructions:

- Use a black or blue pen
- Answer all questions

Advice:

- Read each question carefully before answering.
- Be time conscious.
- It is important to proofread your answers
- Be reminded of the importance of legibility; clear presentation of ideas;

DO NOT START UNTIL YOU ARE TOLD TO DO SO. GOODLUCK!

PRACTICE QUESTIONS.

1) What is the value of (a) 7 in 367? (b) 2 in 2403? Answer: _____

2) Express the number 245 as a Roman numeral. Answer: _____

3) Express the following numbers as a product of prime factors

(a) 18 (b) 45. Answer: _____

4) Find the H. C. F. of 63 and 90. Answer: _____

5) Find the L.C.M. of 12, 15 and 18. Answer: _____

6) Express 458m in kilometres. Answer: _____

7) Arrange the following numbers in ascending order 3403, 3340, 4033, 4303, 3034.

Answer: _____

8) Calculate the value of (a). 7^2 (b) 5^3 (c) $2^3 \times 3^2$ Answer: _____

9) Add 7.5m, 2.35m and 60cm and give the result in metres. Answer: _____

10) Find the number of seconds in $5\frac{1}{2}$minutes. Answer: _____

11) What is the number of minutes in 1hour 30minutes? Answer: _____

12) Find the missing numbers a) 3/4 = x/12 (b) 15/27= 5/y Answer: _____

13). Express the following percentages as fractions in its lowest terms.

(a) 25% (b) 75% c) 28% Answer: _____

14) During a radio programme lasting 1 hour there were 18minutes of talking, the rest was music. What percentage of the radio programme was music? Answer: _____

15) Simplify the following (a) $5^1/4 + 1^1/6 - 3^2/3$.

(b) Divide $(8^1/6 \times 3^3/7)$ by $11^2/3$.

Answer: _____

16) Find the value of x in each of the following true sentences.

a) 6 = 5 + x b) 9 – x = 4 c) 4 + x = 11 d) 2x + 4 = 12.

Answer: _____

17) A girl has #3200. She gives #n to a friend and keeps the rest. If she keeps #1800, what is the value of n? Answer: _____

18) One – sixth of a stick is cut off and then three – tenths of the remaining piece is thrown away. What fraction of the original stick remains?

Answer: _____

19) What fraction of 1 minute is 15 seconds? Answer: _____

20). Simplify the following expressions:

a) 11x + 5x – 2x – x

b) 11n – 3n – 6n + 9n – 5n.

Answer: _____

21). State whether each of the following angles is acute, obtuse or reflex. a) 85^0 b) 19^0 c) 175^0 d) 95^0 e) 183^0

Answer: _____

22). Find the smaller angles between the hour hand and the minute hand of a clock at the following times: a) 7 o' clock b) ½ past 10.

Answer: _____

23). Three children have been counting the number of presents they have under the Christmas Tree. Akin has 5 presents, Bola has 6 presents and Stella has 9 presents.

i) What fraction of the presents is for Akin?

Answer: _____

ii) What percentage of the presents is for Stella?

Answer: _____ %

24). Write the following numbers in words: a) 3489 b) 12719 Answer: _____

25). What numbers do these Roman numerals represent?

a) XXIX b) MMCDIX d) CCXCIX. Answer: _____

26). Write the following as decimal fractions.

a) 6 hundredths b) 9 tenths Answer: _____

27). A block of concrete is 1m long, 50cm wide and 4cm thick. Calculate the volume of the block in cm^3. Answer: _____

28) Here is a list of all the whole numbers from 30 to 40 inclusive:

30 31 32 33 34 35 36 37 38 39 40

i) Write down the two prime numbers from the list: _____, _____

ii) Write down the multiple of 11 from the list: _____

iii) Write down a square number from the list: _____

iv) Write down the multiples of 8 from the list: _____, _____

v) Write down any factors of 120 from the list: _____, _____

29). N represents a certain number. When the number is multiplied by 3 the result is the same as that of adding 34 to the number. Find N.

Answer: _____

30). If the perimeter of a rectangle is 40cm and its width is 8cm, find its length.

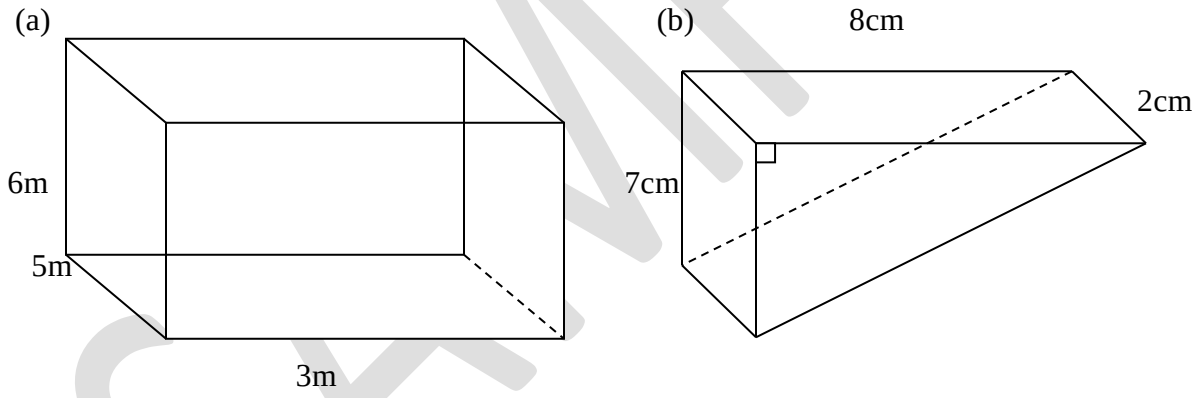
Answer: _____

31) i) Find 50% of 260. Answer: _____

ii) Find 70% of 310. Answer: _____

iii) Find 21% of 1600 Answer: _____

32). Find the volume of the following shapes:



33) What is the place value of:

a) the 3 in 634? Answer: _____

b) the 9 in 29. 7? Answer: _____

c) the 7 in 3.75? Answer: _____

34. Kemi and Fola sat down to have their Christmas Dinner at 7.25 p.m. They finished at 9.00 p.m. For how long did the dinner last?

i) Give your answer in hours and minutes:

Answer: ____ hours _____minutes

ii) Now convert this answer to minutes:

Answer: _____ minutes

35) Find the number that replaces the letters to make the statement true.

a) 13 + 9 = t _____b) p – 14 = 14_____

c) 12 = s + s +s _____ d) 3d + 4 = 16 _____

36) Work out 347 multiplied by 25.

Answer: _____

37) Find the value of the following when x = 6:

a) 19 + x=_____ b) 44 – x = _____ c) 7 – x + x=_____

d) 4x + x= _____ e) x + x + x=_____

38) How many weeks are there in

a) 14 days Answer: _____

b) 28 days Answer: _____

c) 42 days Answer: _____

d) N days Answer: _____

39) The following table shows the number of apples pies and chicken pot pies sold by Marcus in a week. Each apple pie was sold for $2 and each chicken pot pie was sold for $3. Complete the table by filling in the total number of apple pies and chicken pot pies sold.

Day	*Number of apple pies sold*	*Number of chicken pot pies sold*
Monday	*25*	*34*
Tuesday	*23*	*27*
Wednesday	*24*	*38*
Thursday	*30*	*45*
Friday	*22*	*41*
Saturday	*48*	*63*
Sunday	*65*	*50*
TOTAL		

a) How many pies did Marcus sell altogether? Answer: _____

b) On which day did he sell the greatest number of pies? Answer: _____

c) On which day did he collect the greatest amount of money from the sale of two types of pies? Answer: _____

d) How much money did he collect from the sale of the pies for the whole week? Answer: _____

40). Inside a Lagos Santa's grotto the temperature is +19° C due to air conditioning. Outside, the temperature is +32° C.

How much warmer is it outside Santa's grotto compared with inside?

Answer: _____° C

41). Find the cost of 21 Christmas stamps at 19 kobo each.

Answer: #_____K

42).

Y	R	K	R
R	K	Y	K
R	K	Y	R
Y	K	Y	R

In the above table, in row 2, R + K + Y + K = 148

In column 1, Y + R + R + Y = 152

In column 4, R + K + R + R = 111,

What should be the total of the bottom row?

Answer: _____

43). Reduce the following fractions to their lowest terms:

a) 45/63= _____ b) 24/30= _____ c) 16/24=_____ d) 36/72= _____

44). Work out this division:

252 divided by 9

Answer: _____

45) How many lines of symmetry do the following have?

a) A rectangle _____

b) A square _____

c) An equilateral triangle_____

d) An isosceles triangle_____

46) Find the equivalent fraction of;

a. 2/3. b. 3/9. Answer: _____

47) With the use of BODMAS evaluate

a. 3x4+8-2x3= Answer: _____

b. 12÷4+8x3-1= Answer: _____

48) Find all the factors of the following numbers

a. 36 b. 48. Answer: _____

49) Write out the prime numbers from 15 to 40. Answer: _____

50) Work out this division: 155 divided 8. Answer: _____