

FOCUS A365

Another Manyamfranchise.Com Evaluation Test

GATITU SECONDARY SCHOOL

Form 1 | Term 2 | 121 A - Mathematics | 31-Ago-16 | End Term

ADM..... NAME CLASS TIME: $2\frac{1}{2}$ hrs

INSTRUCTIONS:

1. Write your name, class and ADM number in the spaces provided above.
2. All workings must be clearly shown
3. Any acts of **cheating** will render your examinations nullified
4. Sign and write the date of the examination in the spaces provided below
5. This exam has **TEN** printed pages. With section A and B. Answer all questions in **Section A** and any also **ALL** questions in **Section B**

For examiner's use only

Question/Section/Page	1	2	3	4	5	6	7	8	9	10	Total
Max. Score	2	13	12	15	8	14	10	12	9	5	100
Candidate's Score											
Teacher's Remarks :											

Questions

SECTION A: (50MKS) (answer all questions in this section)

1. (a) Evaluate $540396 - 726450 \div 3$ (1 mk)

(b) Write the total value of the digit in the thousands place of the results obtained in (a) above (1 mk)

2. Work out:

a. $7 \times -5 =$ **(1 mk)**

b. $-4 \times -6 =$ **(1 mk)**

c. $-(+4 \times +7) - (-12 \div 4) =$ **(2 mks)**

d. $-4\frac{1}{5} \times 1\frac{1}{14} =$ **(2 mks)**

3. Round off the each of the following numbers to the nearest number indicated in the bracket

a. 473678 (100) **(1 mk)**

b. 524232 (1000) **(1 mk)**

c. 38679 (10000) **(1 mk)**

4. Express as a fraction:

a. $0.\dot{2}\dot{7}$ **(2 mks)**

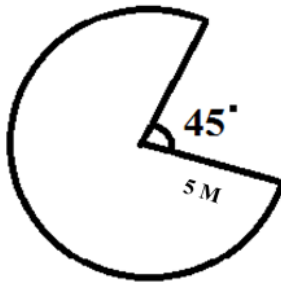
b. $3.2\dot{5}\dot{6}$ **(2 mks)**

5. Find the ratio of a:c if: $a:x = 3:1$, $x:y = 4:1$, $y:c = 2:1$ **(2 mks)**

6. Find the perimeter of the following figures (use $\pi = 3.142$)

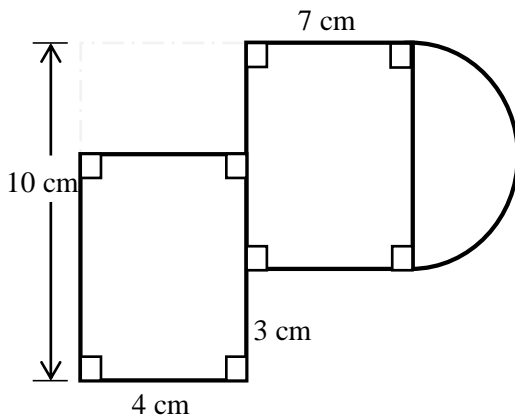
a.

(3 mks)



b.

(3 mks)



7. The length of an arc of a circle is 62.8 cm . if the arc subtends an angle of 144° at the centre. Find the radius of the circle. (take π to be $\frac{22}{7}$) **(4 mks)**

8. Use mathematical tables to evaluate the following questions to **(3 S.F)**

a. 42.5^2 **(3 mks)**

b. $\sqrt{0.8236}$ **(3 mks)**

9. Gerald is twice as old as his brother Robert, and their sister Mary is 7 years younger than Robert.
Write down an expression for the sum of their ages **(3 mks)**

10. Simplify the following expressions:

a. $\frac{a-b}{2} - \frac{2a+b}{3}$ **(3 mks)**

b. (without using mathematical tables or a calculator) solve:

$$\frac{0.036 \times 2}{0.05 \times 3}$$

(3 mks)

11. Two business partners received $\frac{5}{7}$ and $\frac{2}{7}$ of the business proceeds after a year. The businessman who received the larger share was required to spend $\frac{1}{8}$ of his share to pay all workers. If the business realized Sh.180, 000.00. How much did the workers receive? **(3 mks)**

12. Andusta made three trips from town P to town Q by bus. On two occasions, he returned to P by minibus and once by bus. If the fare to Q from P is Sh. 180 by bus and Sh. 220 by minibus, how much did the trips cost him? **(3 mks)**

13. If $A=(R^2 - r^2)$. Find A when:

a. $R = 19$ and $r = 11$

(1 mk)

b. $R = 0.6$ and $r = 0.2$

(1 mk)

SECTION B: (50MKS) (*this section has 5 questions, answer any **five** question from this section*)

14. Maurine is ten years older than her brother Jonathan .Find an expression for :

a. Sum of their ages (2mks)

b. The sum of their ages in **five** years' time (2mks)

c. The product of their ages **three** years ago (3mks)

d. If 9 years ago Jonathan was 13years old .What is the present age of Maurine? (3mks)

15.

a. State a condition in which a number is divisible by the following numbers

4 –

5 –

8 –

10 -

(4mks)

b. Show whether the following numbers are divisible by numbers in the bracket :
i. 1257 (3) (2mks)

ii. 612 (11) (2mks)

iii. 126734 (2) (2mks)

16. A rectangle measures 18cm by 12cm.

a. If each dimension is reduced by 2cm, What percentage is :

i. Perimeter of rectangle reduced (2mks)

ii. Area of the rectangle reduced (2mks)

b. If each dimension is reduced by 2% by what percentage is :
i. The perimeter of the rectangle reduced (3mks)

ii. The area of the rectangle reduced (3mks)

17. An institutional water tank has a radius of 2.1m and a height of 450cm.

a. Find the area of water tank (3mks)

b. How many litres of water does the tank carry when full? (3mks)

- c. If the institution uses 5000 liters of water a day, approximately how many days will the full tank last? (2mks)
- d. If the water was to be transferred to a rectangular tank of base area 6.237m^2 . What will be the height of the rectangular tank? (2mks)

18.

- a. The ratio of Mark's earning to Mary's earnings is 5:3. If mark's earning is increased by 12%, his figure becomes sh. 5600. Find the corresponding percentage change in Mary's earning if the sum of their new earnings is sh. 9600. (5mks)

- b. It takes 30minutes for a man to travel a distance at 12km/h .How long will he take to cover same distance at 18km/h? (2mks)
- c. A truck travels 60km on 6 litres of petrol. How far does it travel on 12 litres of petrol? (2mks)
- d. Four men can prune 2000 tea stems in one day, how many days can the same number of men take to prune 10000 tea stems? (1 mk)

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GOOD LUCK FROM MATHEMATICS DEPARTMENT