Candidate's Examination Number _____

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM ONE ENTRANCE EXAMINATION

130 MATHEMATICS

TIME: 2:30 HOURS SUNDAY, 20TH DECEMBER 2020 A.M

INSTRUCTIONS TO CANDIDATES

1. This paper consists of TWO (2) sections A and B.
2. Answer ALL questions in section A and any FOUR (4) questions in section B.
3. Write your examination number on each page.
4. Write all answers in the spaces provided.
5. Use a blue or black pen in writing.
6. Cellular phones, calculators and unauthorized materials are not allowed in the examination room.

FOR EXAMINER'S USE ONLY		
QUESTION NUMBER	MARKS	SIGNATURE
1.		
2.		
3		
4.		
5.		
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8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
TOTAL		

This paper consists of 14 printed pages

SECTION A: (60 Marks)

Answer ALL questions in this section.

1. Subtract sixty seven thousand, four hundred and fifty five from three hundred and sixty seven thousand, two hundred and sixty five.

2. Express 132 as the product of prime factors.

3. Find the value of $\left(\frac{2}{7} \div \frac{1}{7}\right) \times \left(\frac{1}{4} \div \frac{3}{2}\right) + \frac{5}{84} - \frac{15}{84}$

4. Convert 281_{10} to base 4

5. A man from Zanzibar has 3000 US dollar and intended to convert them into Tanzania shillings. If 1 US dollar is equal to sh. 2150 TZS. How much does he get in Tanzania shillings?

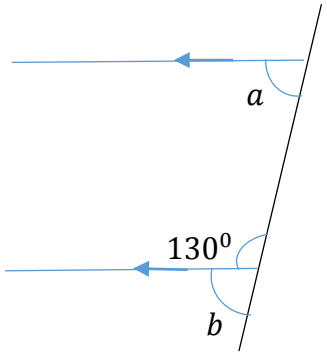
6. The volume of the cube is $216\ \text{cm}^3$. Find the area of its base.

7. Simplify $\frac{x+2}{6} + \frac{2x-3}{4}$

8. Find the value of $(+10) \times (-12) + (+7) \times (+4)$.

9. Convert 19.75% in fraction.

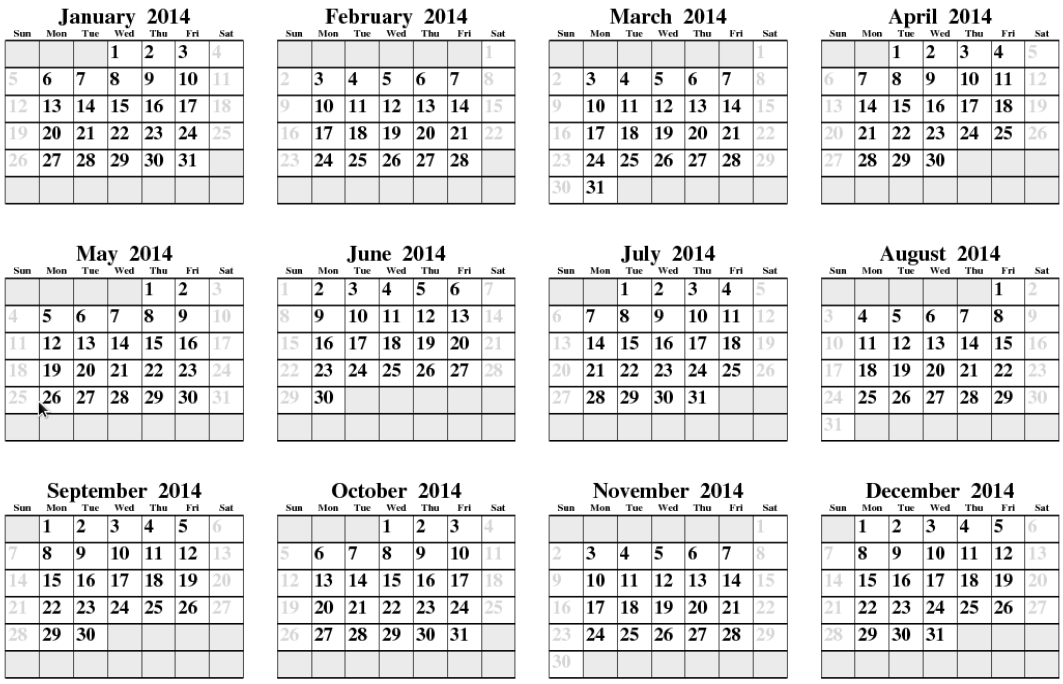
10. Find the value of angles $a \; and \; b$ in the figure below



SECTION B: (40 Marks)

Answer ANY FOUR (4) questions in this section.

11. Look at the calendar and answer the following questions given below.



January 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

a) Was 2014 an ordinary year or a leap year? Why?

b) How many months have 30 days? List them.

c) Consider today is 14th October 2014 and the examination is supposed to start at 8th December. How many days have remained to start the examination?

d) Which month has least number of days?

12. a) Ali deposited $\text{shs.}\,300{,}000$ in a saving account at the interest rate of $7\frac{1}{2}\%$ per annum. After how many years will the interest be $shs.\,45{,}000$?

b) A car was bought at sh. 4,000,000 and got a loss of sh. 3,000,000. Find the percentage loss.

13. The following table shows the number of patients treated in Mnazi Mmoja hospital in one day:

Diseases	Malaria	Flue	Diarrhoea	Others
Number of the patients	160	20	180	m

a) If the total number of the patients is 400, find the value of m.

b) Find the angle representing other diseases.

c) Show the data by using a pie chart.

14. Look at the numbers in the table below, then write down.

39	24	13
15	81	28
40	11	5

a) Two numbers that add to give 64

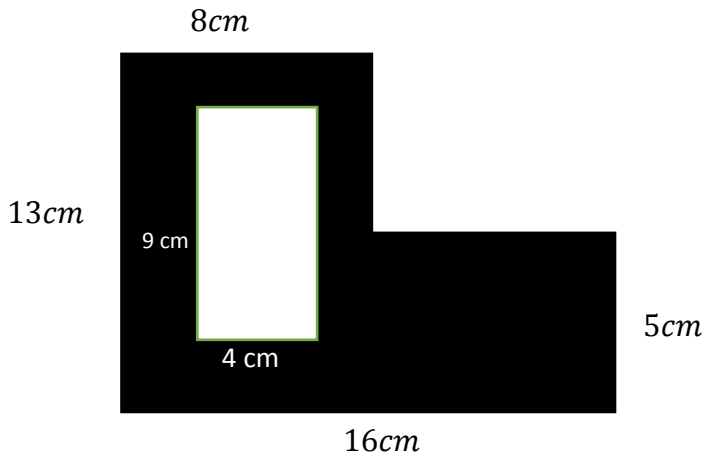
b) Two numbers that differ by 15

c) A perfect square(s)

d) Prime number(s)

e) Even number(s)

15. Find the area of the shaded portion of the shape shown below.



16. The following table shows the masses in kilogram of packets of beans sold by Juma.

Mass of beans in (kg)	20	25	30	35	40	45
Number of packets of beans	3	8	14	8	4	2

Draw the histogram on the graph paper to display the data.

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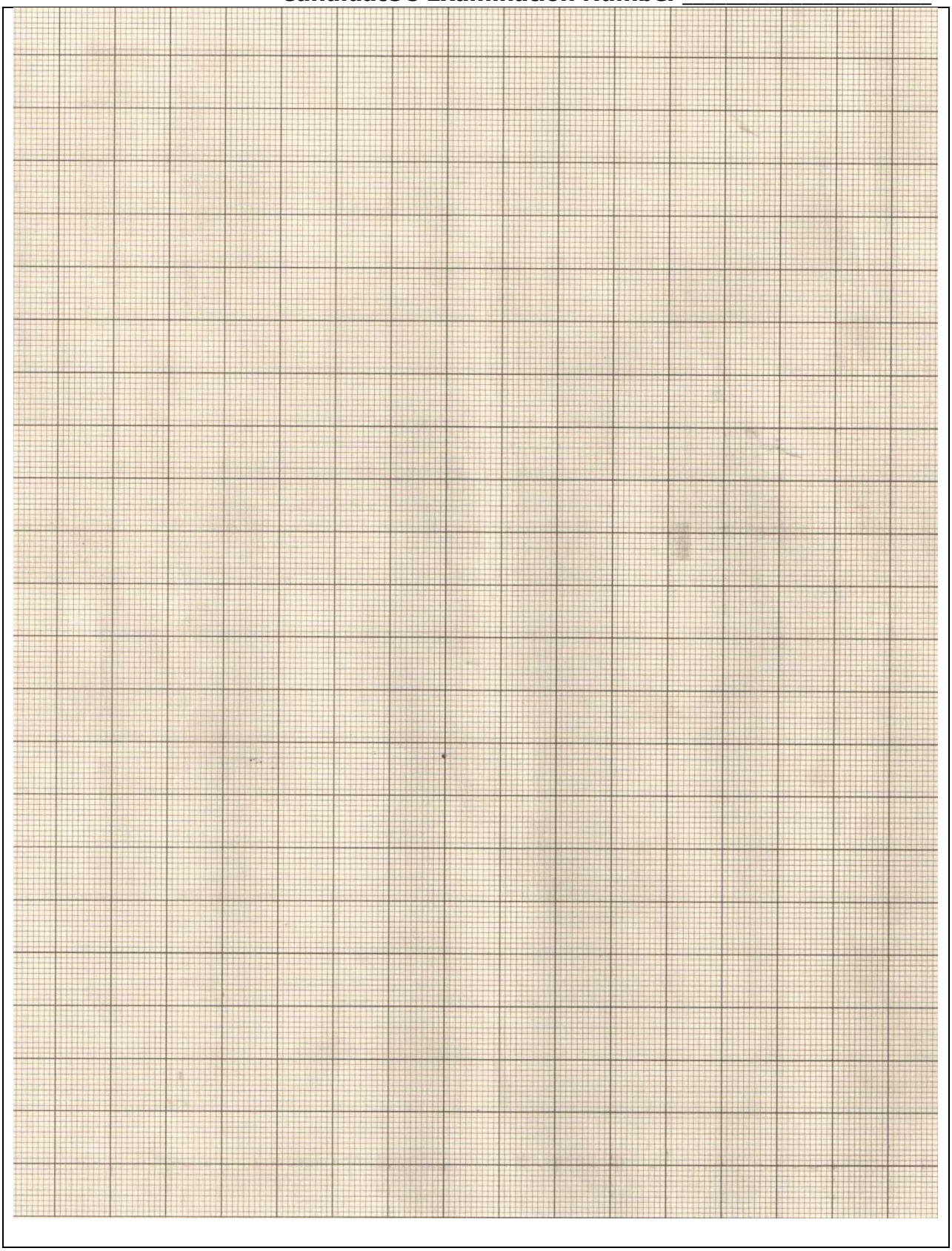

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ROUGH WORK