

**SMZ**  
**ZANZIBAR EXAMINATIONS COUNCIL**  
**FORM ONE ENTRANCE EXAMINATION**

**130**

**MATHEMATICS**

**TIME: 2.00 HOURS**

**FRIDAY 30<sup>th</sup> NOVEMBER, 2018 a.m.**

- 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 answers in the spaces provided.**
- 4. Cellular phone and calculator are not allowed in the examination room.**
- 5. Write your examination number on each page.**

<b>FOR EXAMINER'S USE ONLY</b>		
<b>QUESTION NUMBER</b>	<b>MARKS</b>	<b>SIGNATURE</b>
<b>1.</b>		
<b>2.</b>		
<b>3</b>		
<b>4.</b>		
<b>5.</b>		
<b>6.</b>		
<b>7.</b>		
<b>8.</b>		
<b>9.</b>		
<b>10.</b>		
<b>11.</b>		
<b>12.</b>		
<b>13.</b>		
<b>14.</b>		
<b>15.</b>		
<b>16.</b>		
<b>TOTAL</b>		

**This paper consists of 16 printed pages**

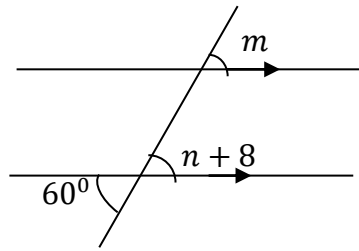
**Answer ALL questions in this section**

2. Use factors tree to find the prime factors of 86.

3. Find the sum of  $(0.5 \times 9)$  and  $(0.3 \times 6)$ .

4. A swimming pool measures *25m long, 5m wide and 12m high*. What is its volume in liters?

5. Find the value of  $m$  and  $n$ .



6. Find the value of  $x$  in the equation  $\frac{2}{3}(2x + 4) + 6 = 10$ ?

7. The boat started from Zanzibar at



It reached to Dar es Salaam at

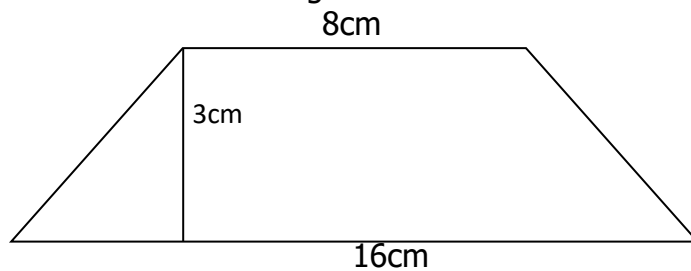


How much time boat has taken to reach Dar-es-Salaam?

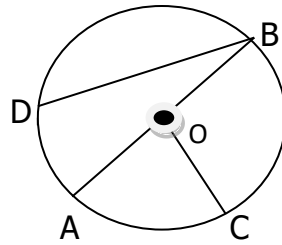
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8. What is the area of the figure shown below?



9. Use the circle below to answer the following questions



a) What name is given to arc AC

\_\_\_\_\_

b) What name is given to line AB

\_\_\_\_\_

c) Why line DB is not equal to line AB?

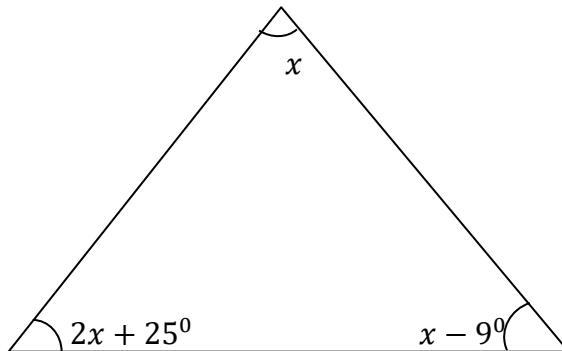
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10. Find the value of  $\frac{1}{2}$  of  $\left(\frac{6}{5} - \frac{1}{2}\right) + \frac{1}{2} \times \frac{1}{2}$ .

**SECTION B: (40 marks)**  
**Answer ANY four (4) questions in this section**

11. a) Find the value of angle  $x$  in the figure below



- b) Ali earns shillings 5400 after working for 24 *days*. How much money should receive if he is absent for 6 *days*?

12.a) Find the length of equilateral triangle whose perimeter is 120cm.

b) Asha borrowed shillings 10,000 for period of 2 years. She charged compound interest at the rate of 15% per year. How much interest did she pay all together?



13. a) A bag of sugar weighed  $150\text{kg}$ . Juma bought 14 bags. He then removed  $5\text{kg}$  of sugar from each bag. What total weight of sugar remained?

b) Find the value of  $4407_8 + 30_8$

14. a) Express  $1\frac{1}{2}\%$  as fraction.

b) If  $m$  and  $n$  are directly proportional to each other, copy and complete the following table:

$m$	15	10		0.2	
$n$	3		6		4

15. Complete the table below:

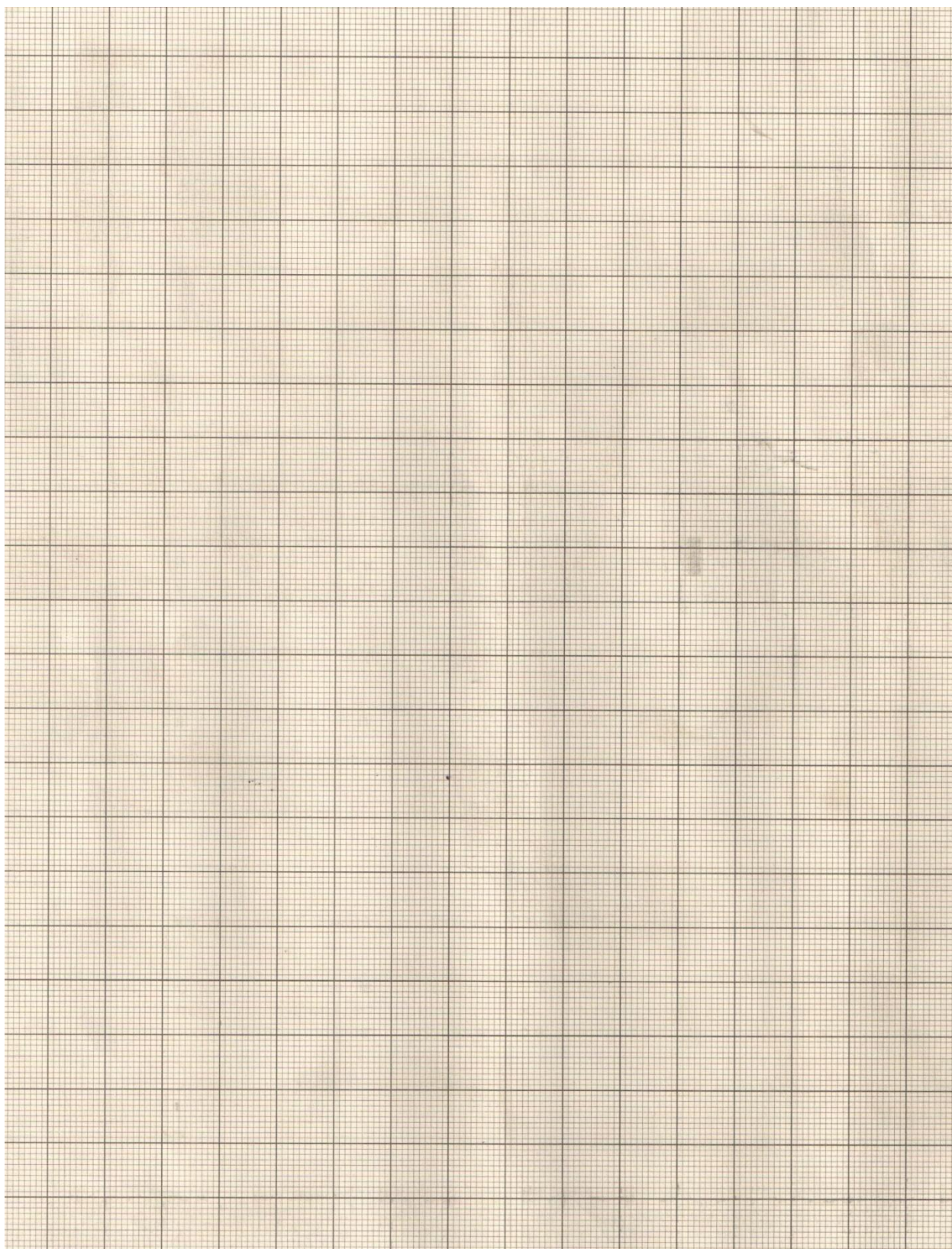
Buying price in shillings	Selling price in shilling	Profit	Percentage profit
20,000			60%
	35,000	10,000	
12000		3000	

16. a) In the year 2018. February 19<sup>th</sup> was Monday. What day was March 6<sup>th</sup> of the same year?

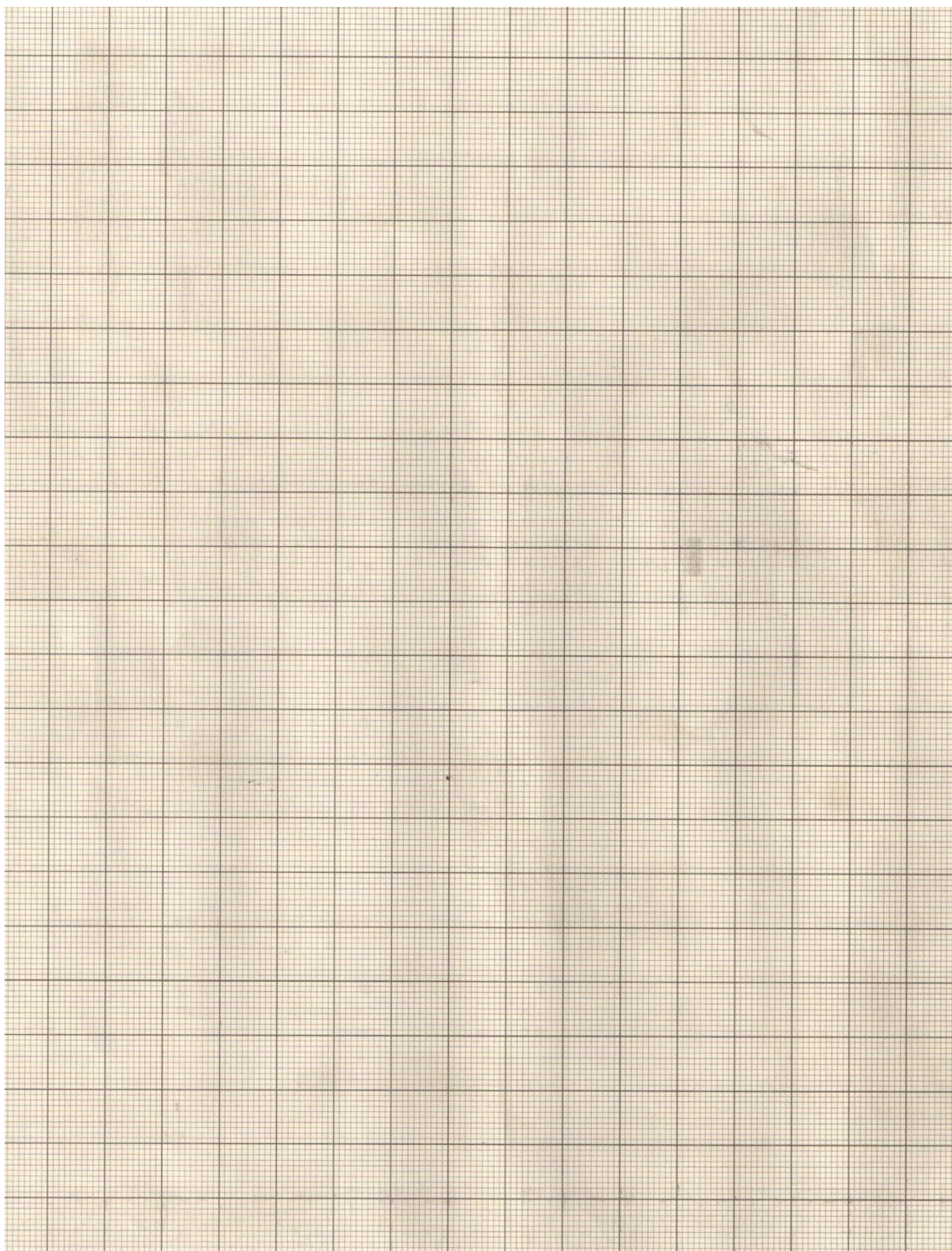
b) The following table shows the masses in kg of fish sold by Juma.

Mass of fish in kg	15	20	25	30	35	40
Number of fish	2	6	8	10	4	6

Draw the histogram of this information.







## **ROUGH WORK**

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