



Coimisiún na Scrúduithe Stáit  
State Examinations Commission

Leaving Certificate Examination 2015

# Mathematics

Foundation Level

Friday 5 June      Afternoon 2:00 – 4:30

300 marks

Examination number
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Centre stamp
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Running total	
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For examiner	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Total	

Grade
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## Instructions

There are **two** sections in this examination paper.

Section A	200 marks	8 questions
Section B	100 marks	2 questions

Answer all ten questions.

Write your answers in the spaces provided in this booklet. You may lose marks if you do not do so. There is space for extra work at the back of the booklet. You may also ask the superintendent for more paper. Label any extra work clearly with the question number and part.

The superintendent will give you a copy of the *Formulae and Tables* booklet. You must return it at the end of the examination. You are not allowed to bring your own copy into the examination.

**You will lose marks if all necessary work is not clearly shown.**

**You may lose marks if the appropriate units of measurement are not included, where relevant.**

**You may lose marks if your answers are not given in simplest form, where relevant.**

Write the make and model of your calculator(s) here:











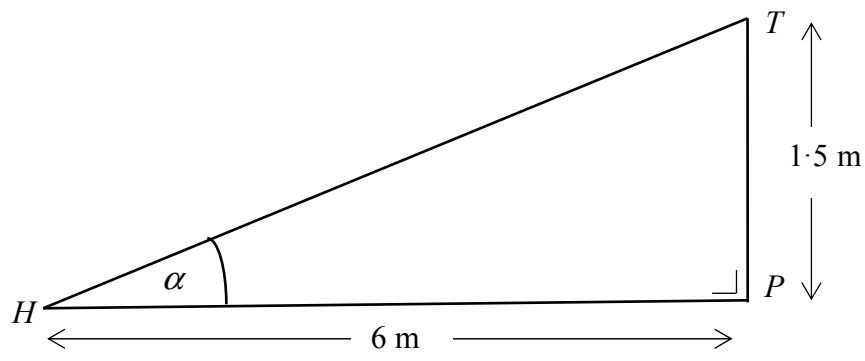








- (b) The diagram below shows the vertical post  $[PT]$  and the point  $H$  which is on the ground. The measurements are as shown. (Diagram not drawn to scale.)



Find  $|\angle\alpha|$ , correct to the nearest degree.



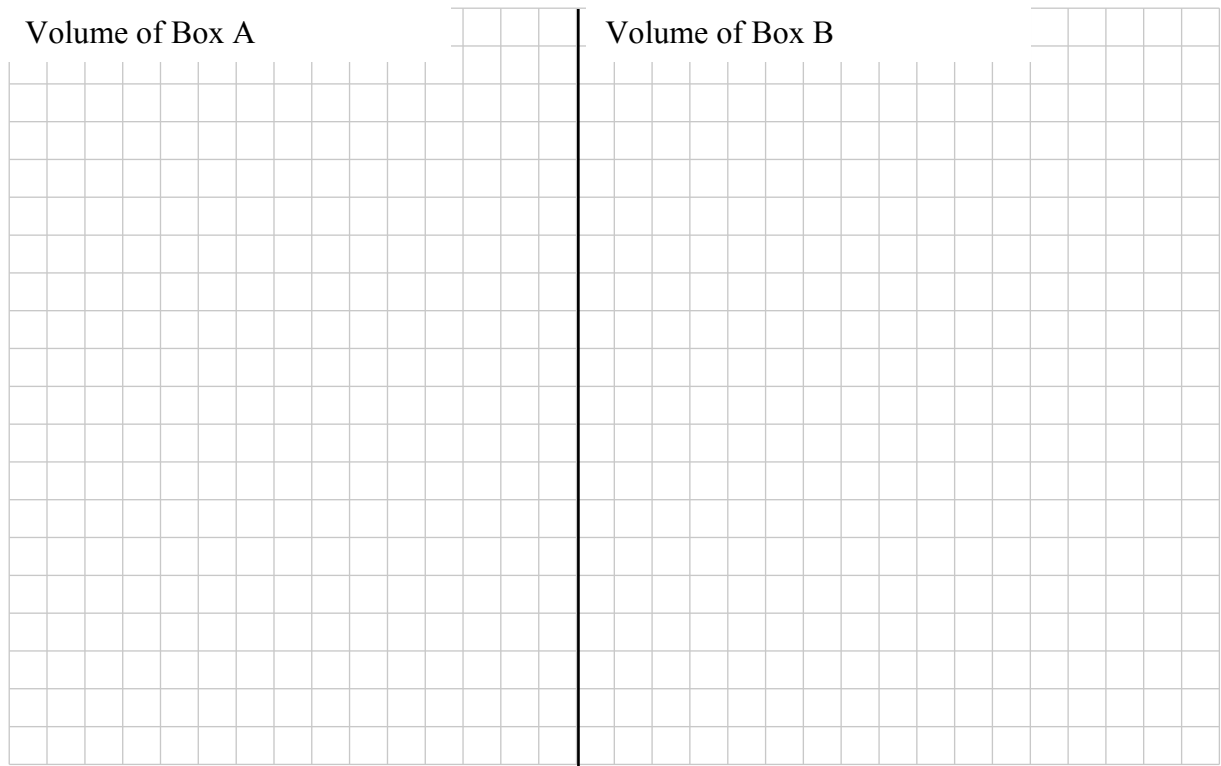
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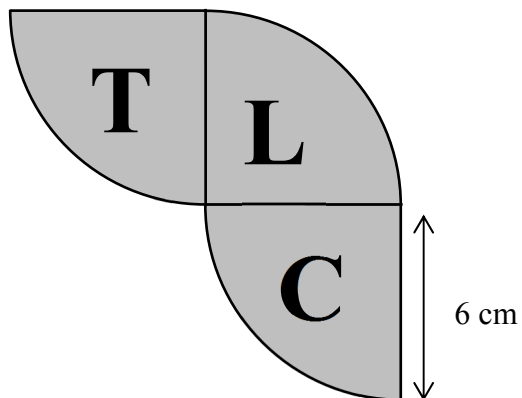


- (ii) Geraldine wants to use the box with the greater volume. Find which box has the greater volume.



Answer: \_\_\_\_\_

- (b) The diagram below shows the logo for Geraldine's company, TLC Ltd. Each letter is contained in a quarter circle of radius 6 cm.

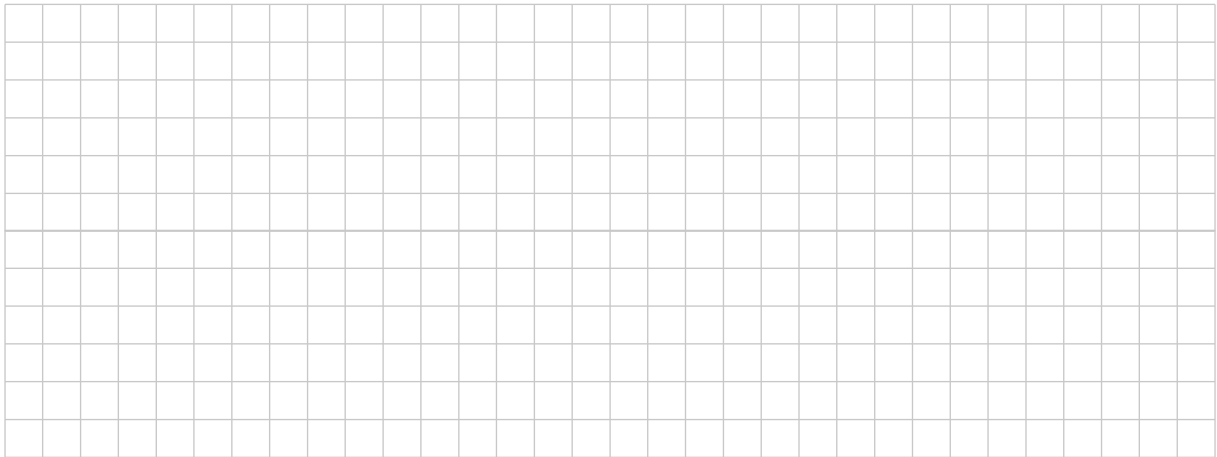


- (i) Construct the full sized logo in the grid below. (You do not need to include the letters.)





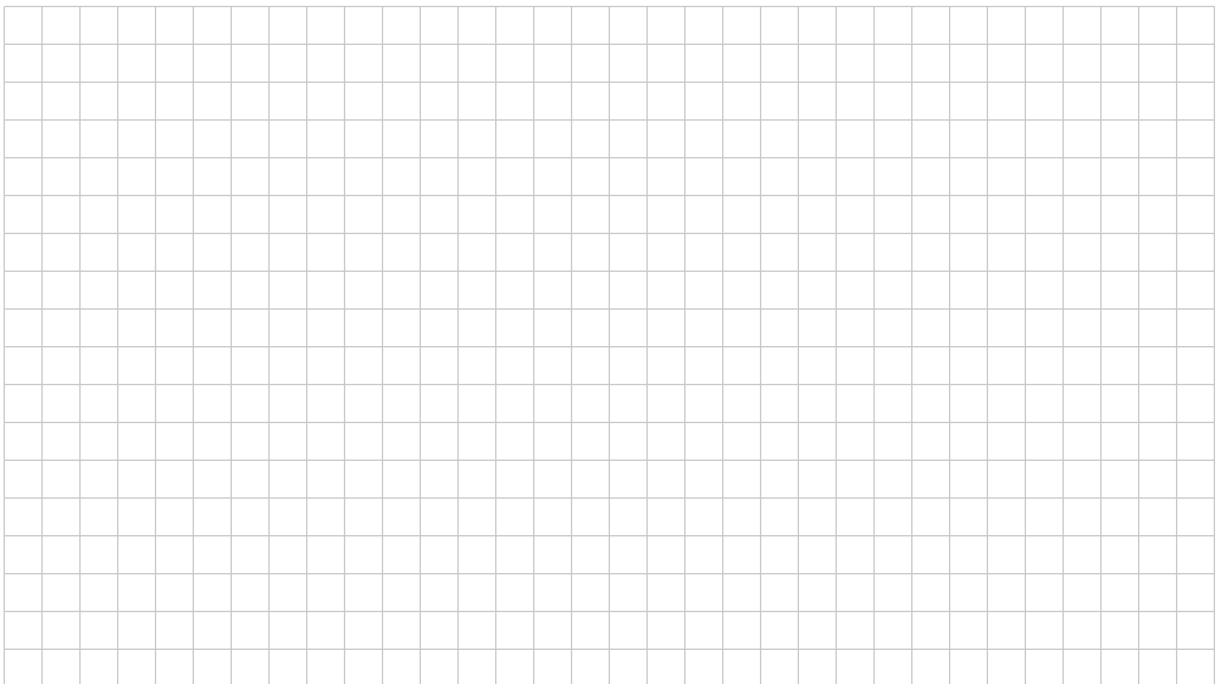
- (ii) Find the length of the perimeter of this logo. Give your answer correct to the nearest whole number.



- (iii) Find the area of the logo. Give your answer correct to three decimal places.

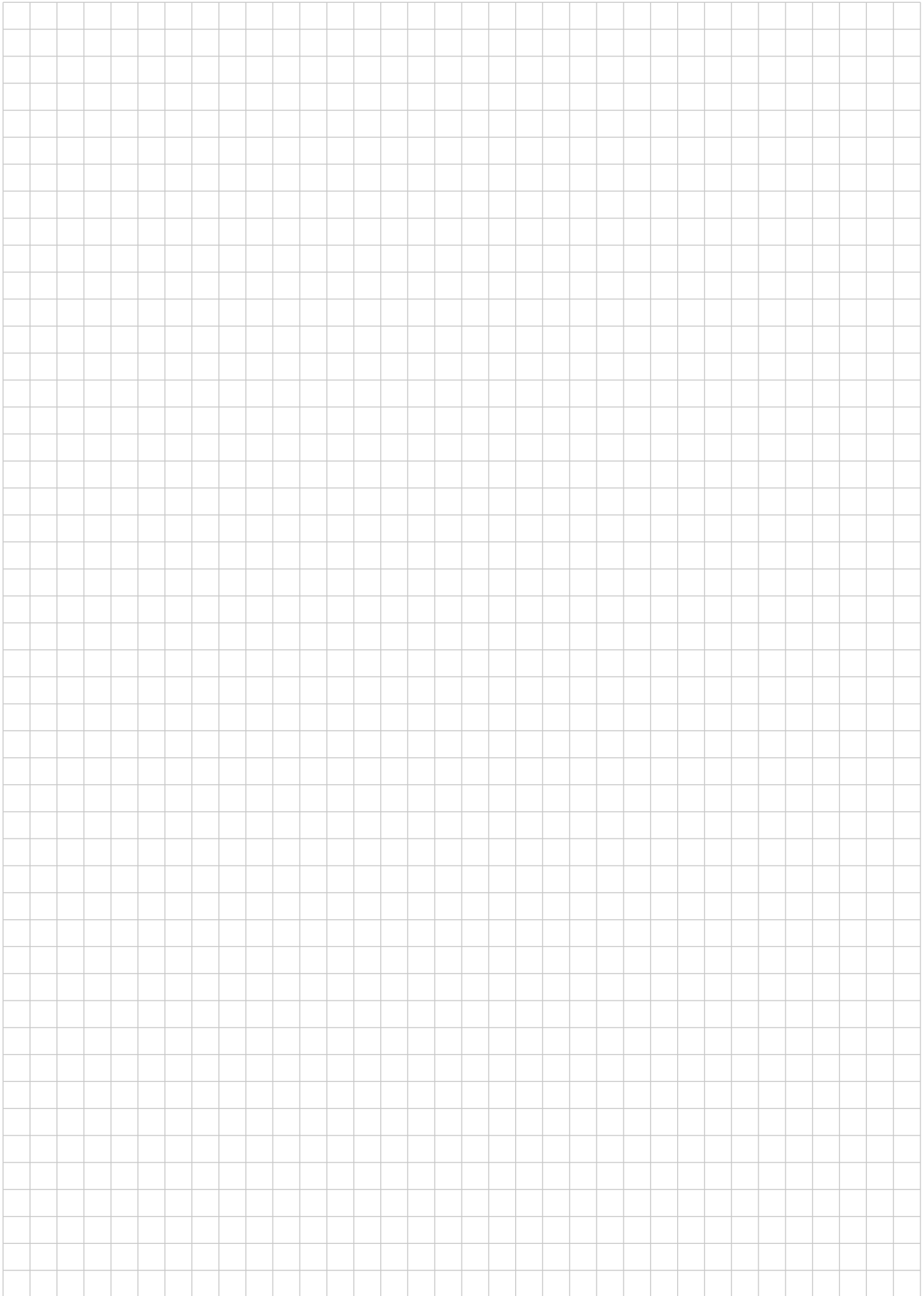


- (iv) The material used to construct the logo costs €0.25 per  $\text{cm}^2$ . Find the cost of constructing 50 logos, correct to the nearest euro.

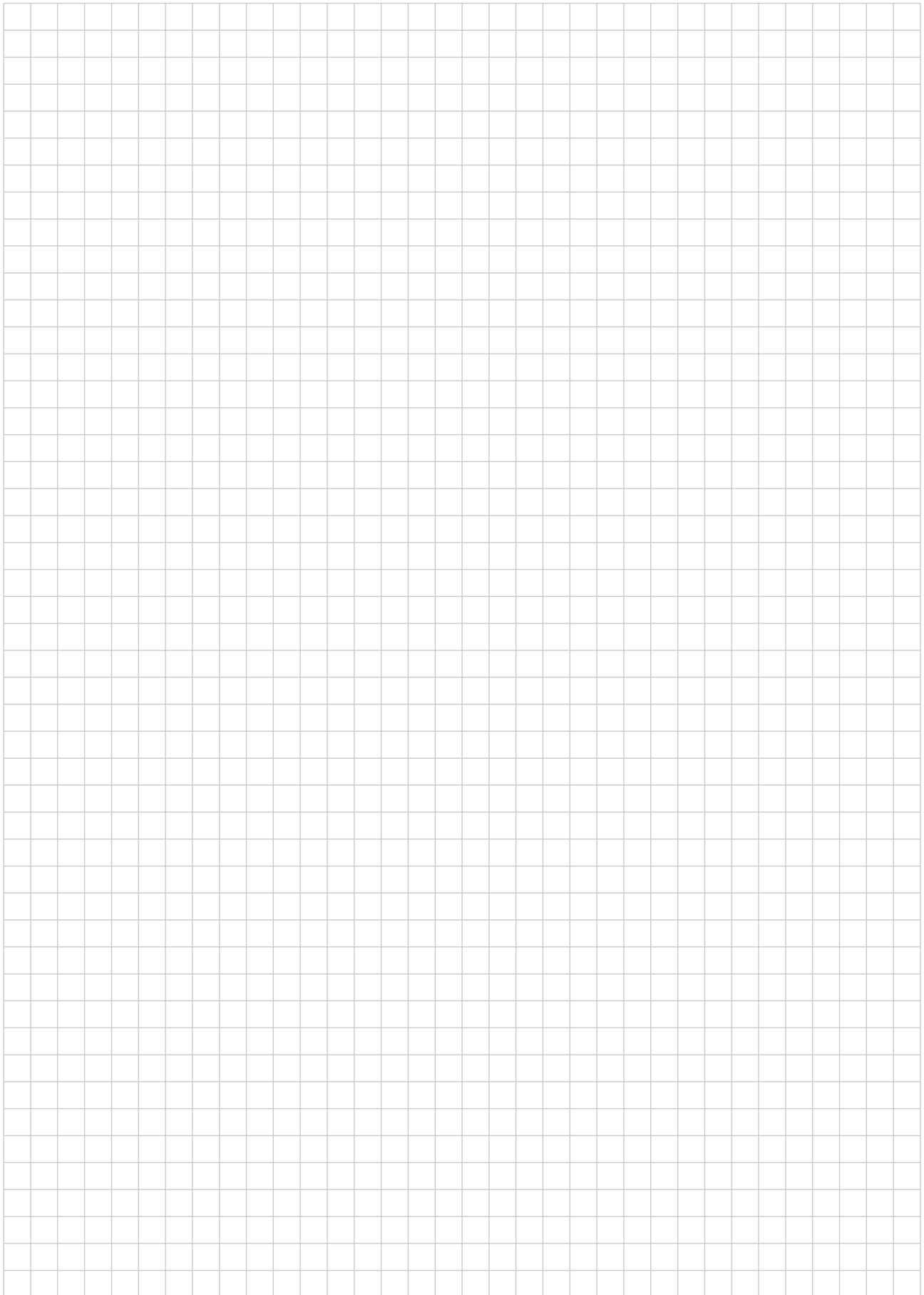


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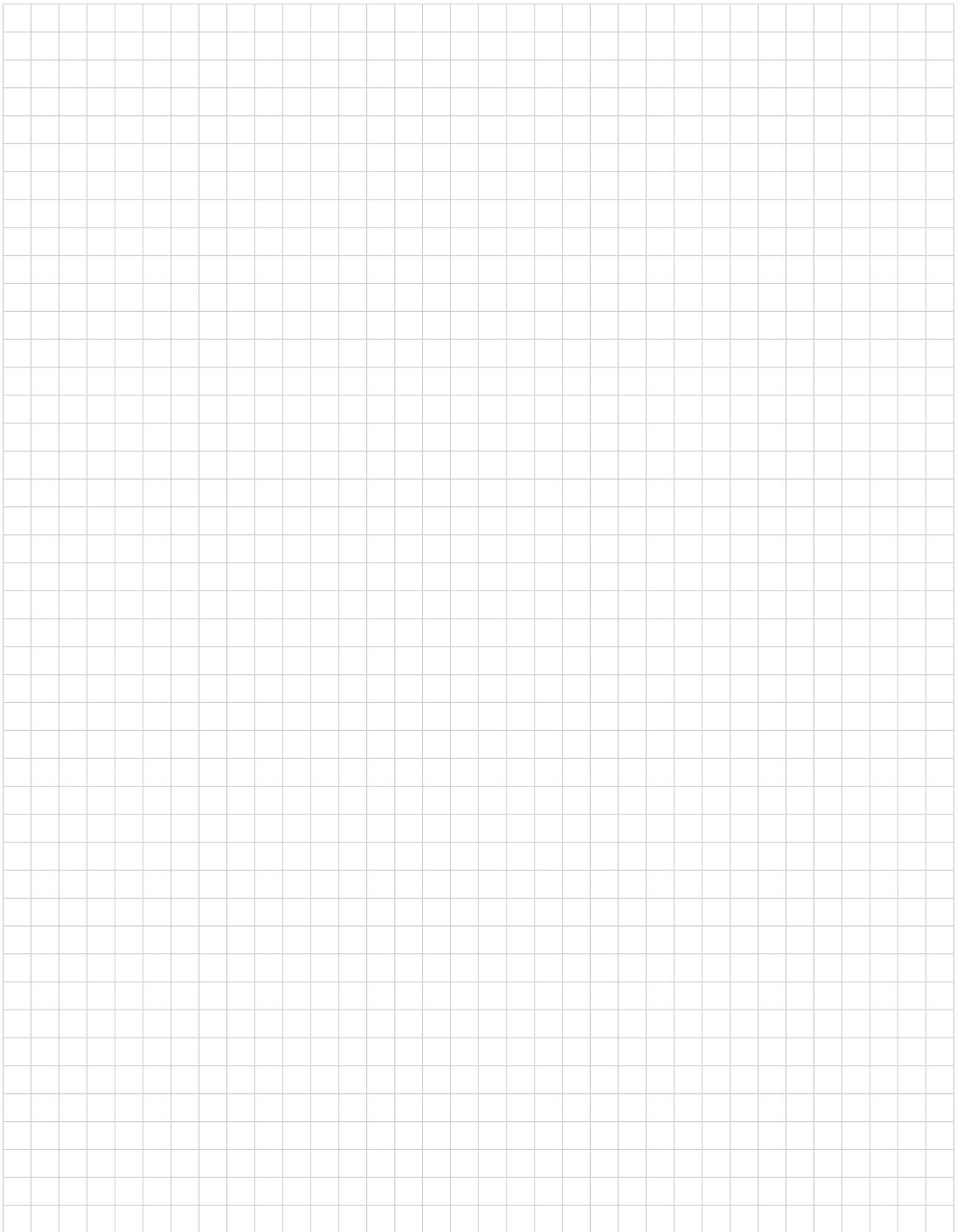
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