

Experiment



A2-1

Official (English)

Acoustic Black box Answer Sheet¹

A.1 (0.2 pt)

$x(t) =$

$y(t) =$

¹Siddharth Tiwary (IIT Powai, Mumbai), Siddhant Mukherjee (The University of Cambridge, UK), Chandan Relekar (IISc, Bangalore), Charudutt Kadolkar (IIT Guwahati), Praveen Pathak (HBCSE-TIFR, Mumbai), were the principal authors of this problem. The contributions of the Academic Committee and the International Board are gratefully acknowledged.

Experiment

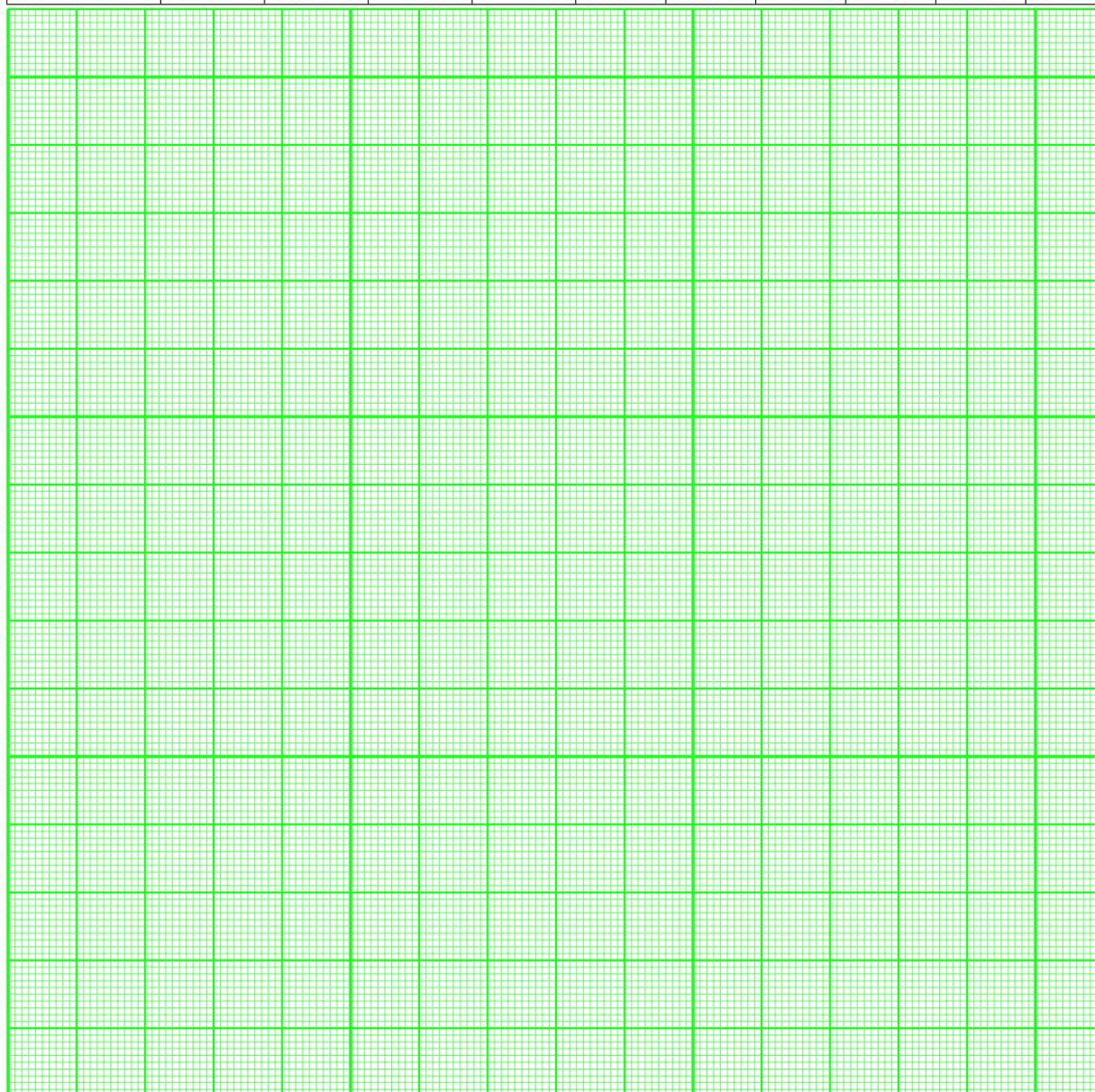


A2-2

Official (English)

A.2 (1.2 pt)

No.	1	2	3	4						
$t(s)$										
f (Hz)										



Experiment



A2-3

Official (English)

A.3 (1.0 pt)

Expression for minimum frequency:

A.4 (1.4 pt)

Source's initial coordinates:

(X_A, Y_A) :

A.5 (2.1 pt)

f_0 (Hz)	ω (rad s ⁻¹)	R (m)	v_S (m/s)

A.6 (2.0 pt)

β (in degrees) =

A.7 (2.1 pt)

Source's initial center coordinates:

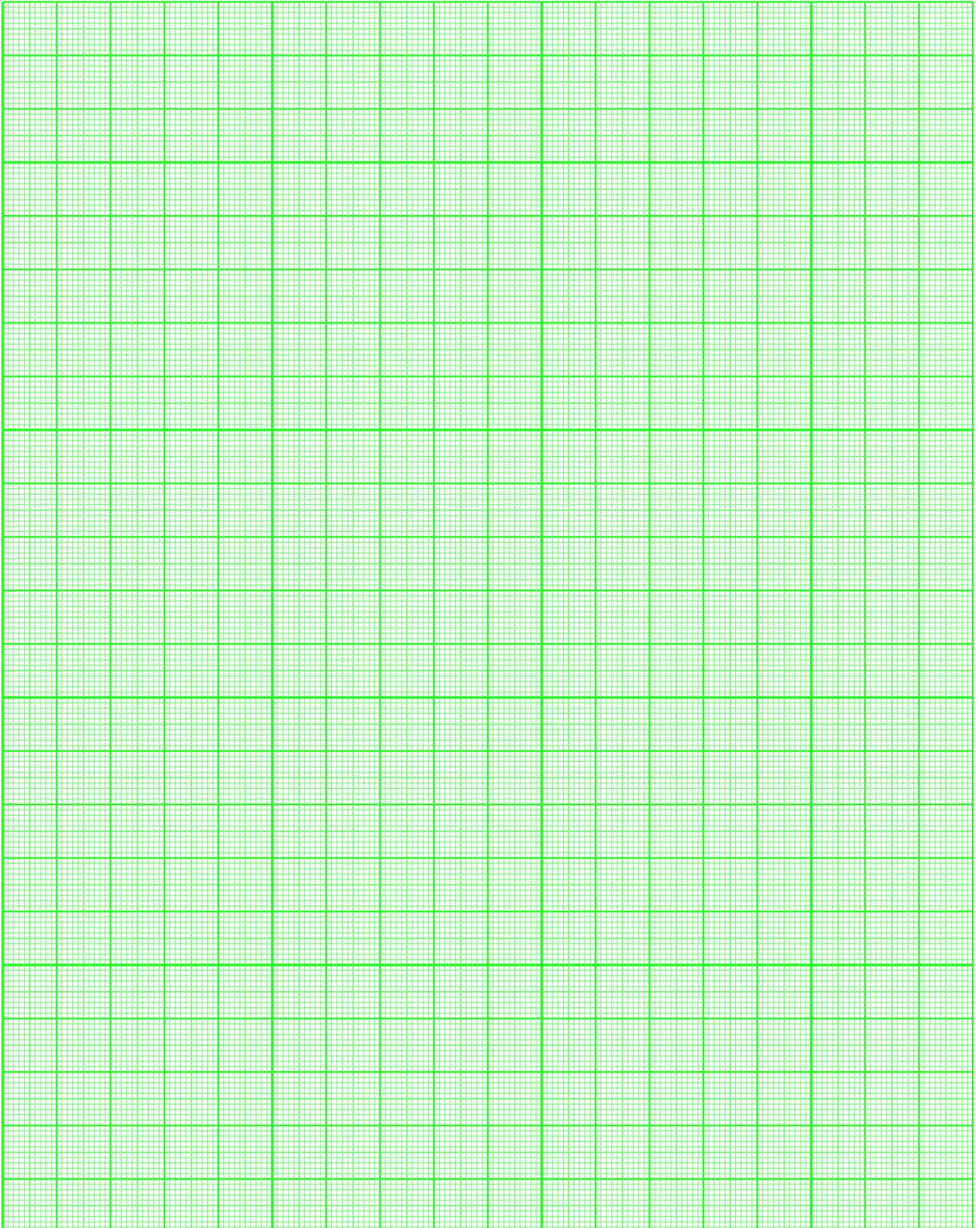
(X_C, Y_C) :

Experiment



A2-5

Official (English)

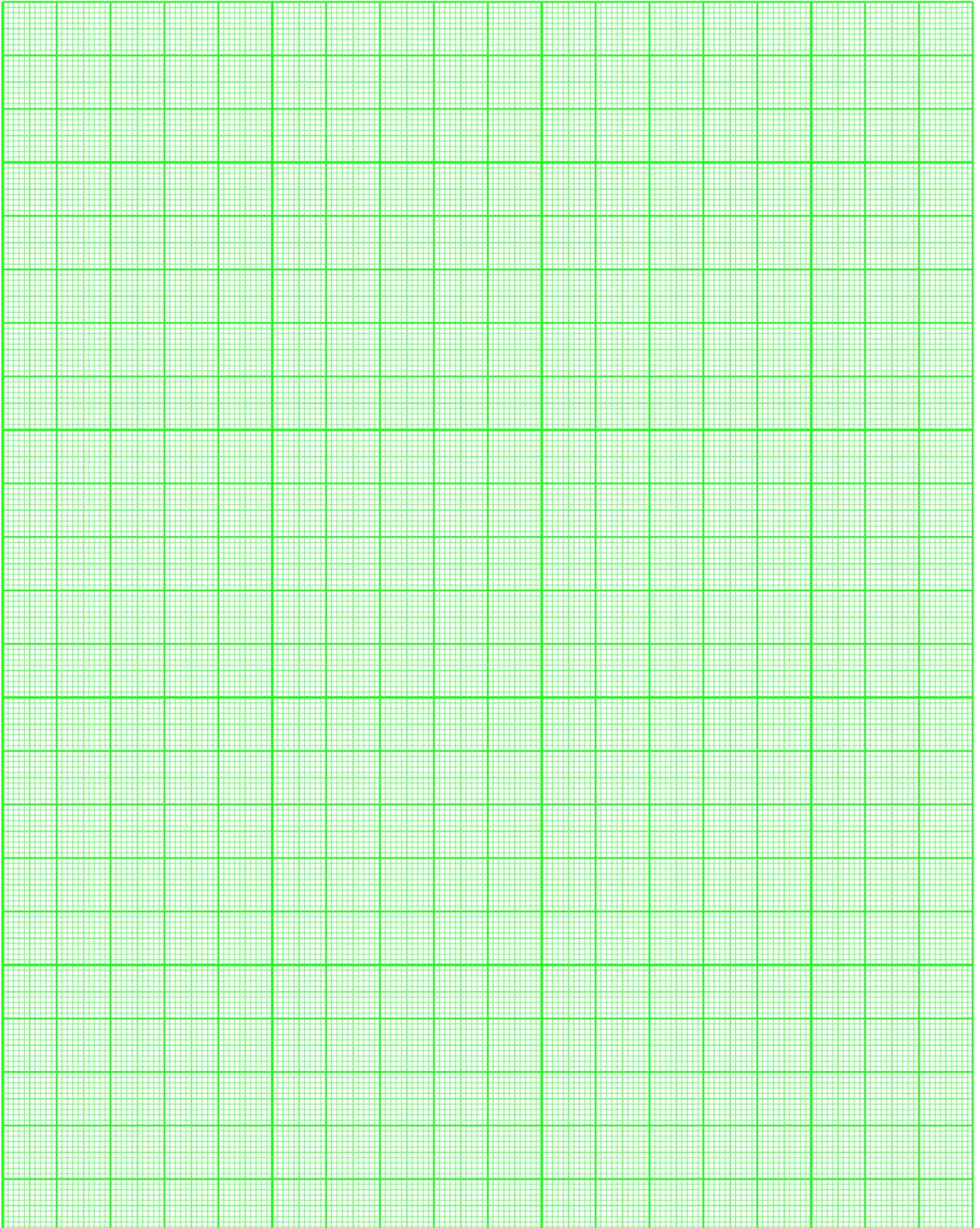


Experiment



A2-6

Official (English)

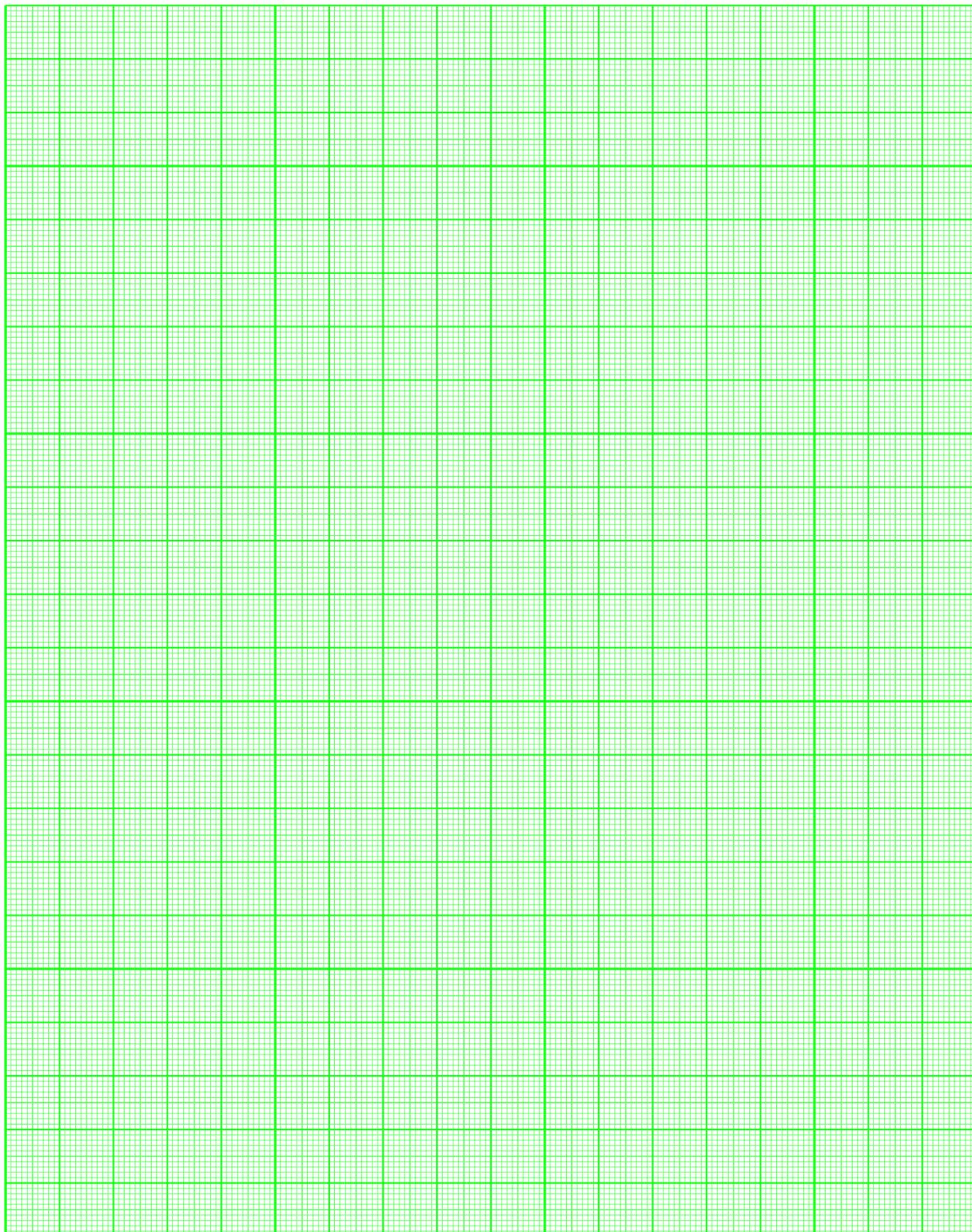


Experiment



A2-7

Official (English)

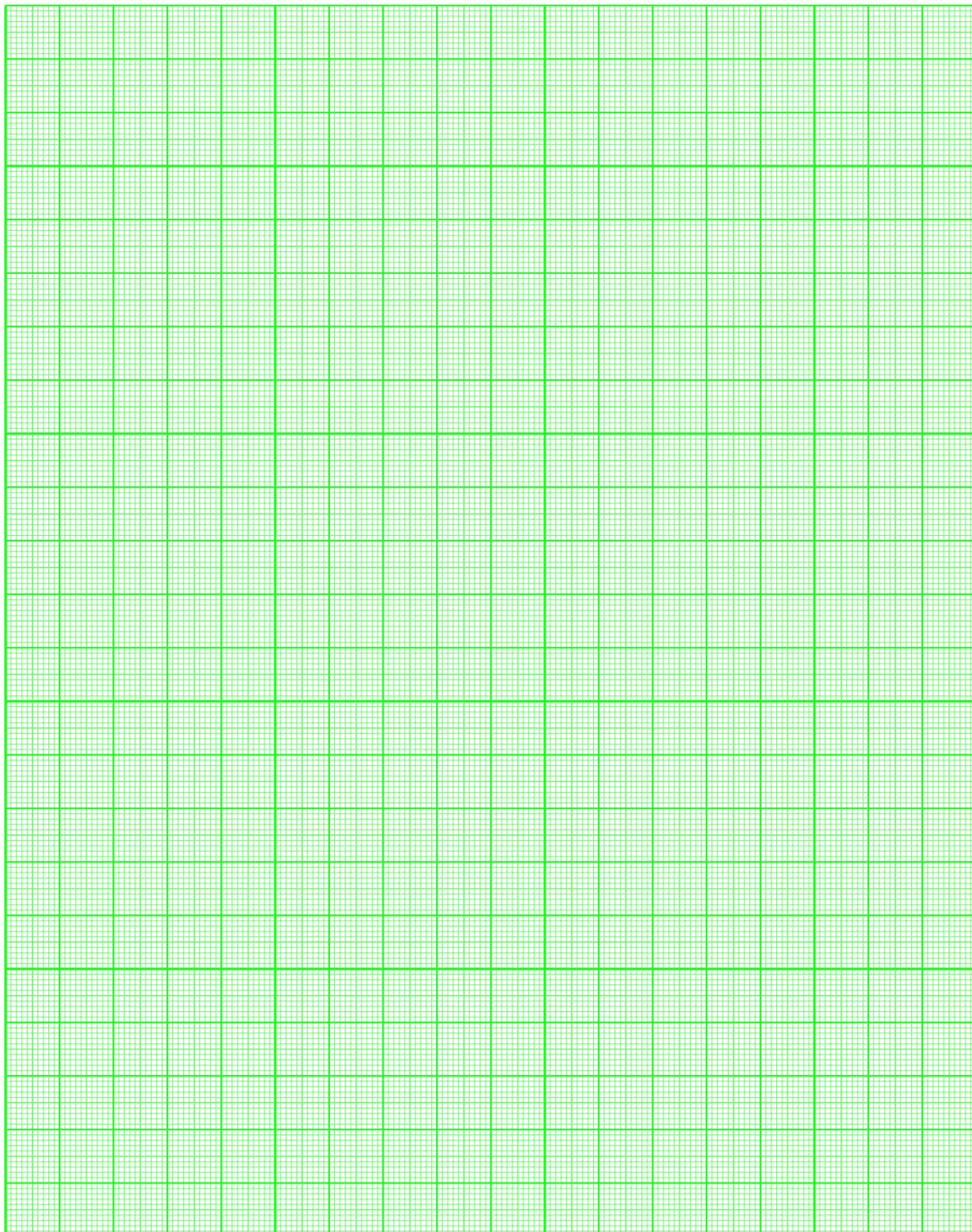


Experiment



A2-8

Official (English)



Experiment



A2-9

Official (English)

