

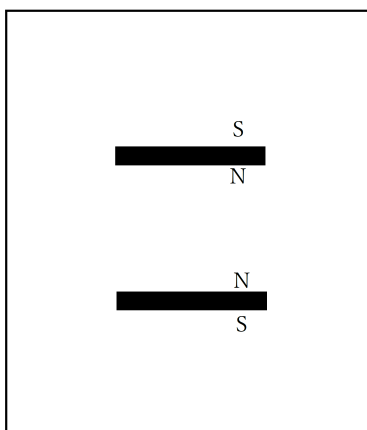
## Mass Measurement (10 points)

Write down the numbers 0 to 9 in the following table:

0	1	2	3	4	5	6	7	8	9

### Part A: Hooke's law and electromagnetic forces (2.4 points)

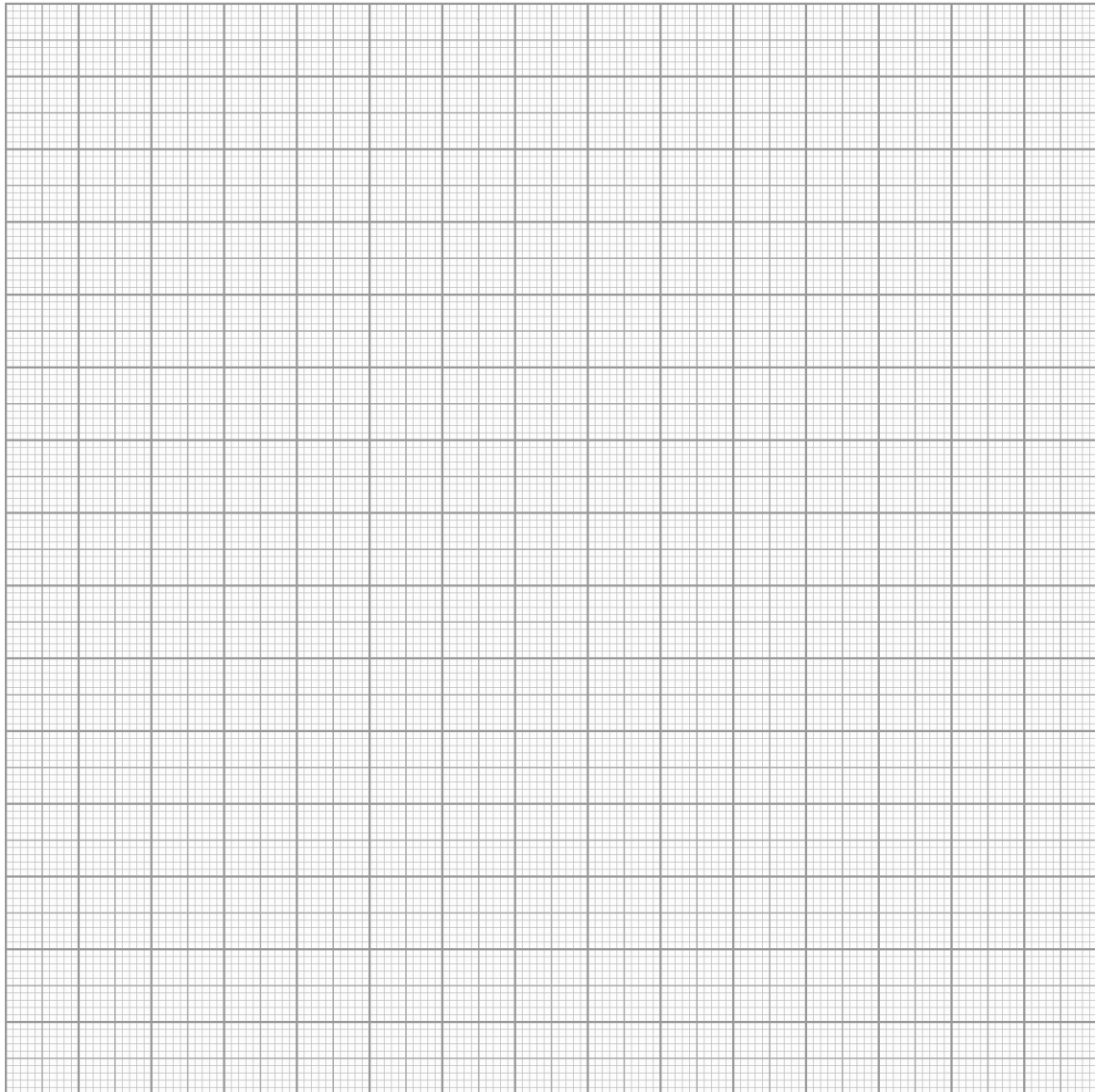
A.1 (0.4pt)



A.2 (0.6pt)

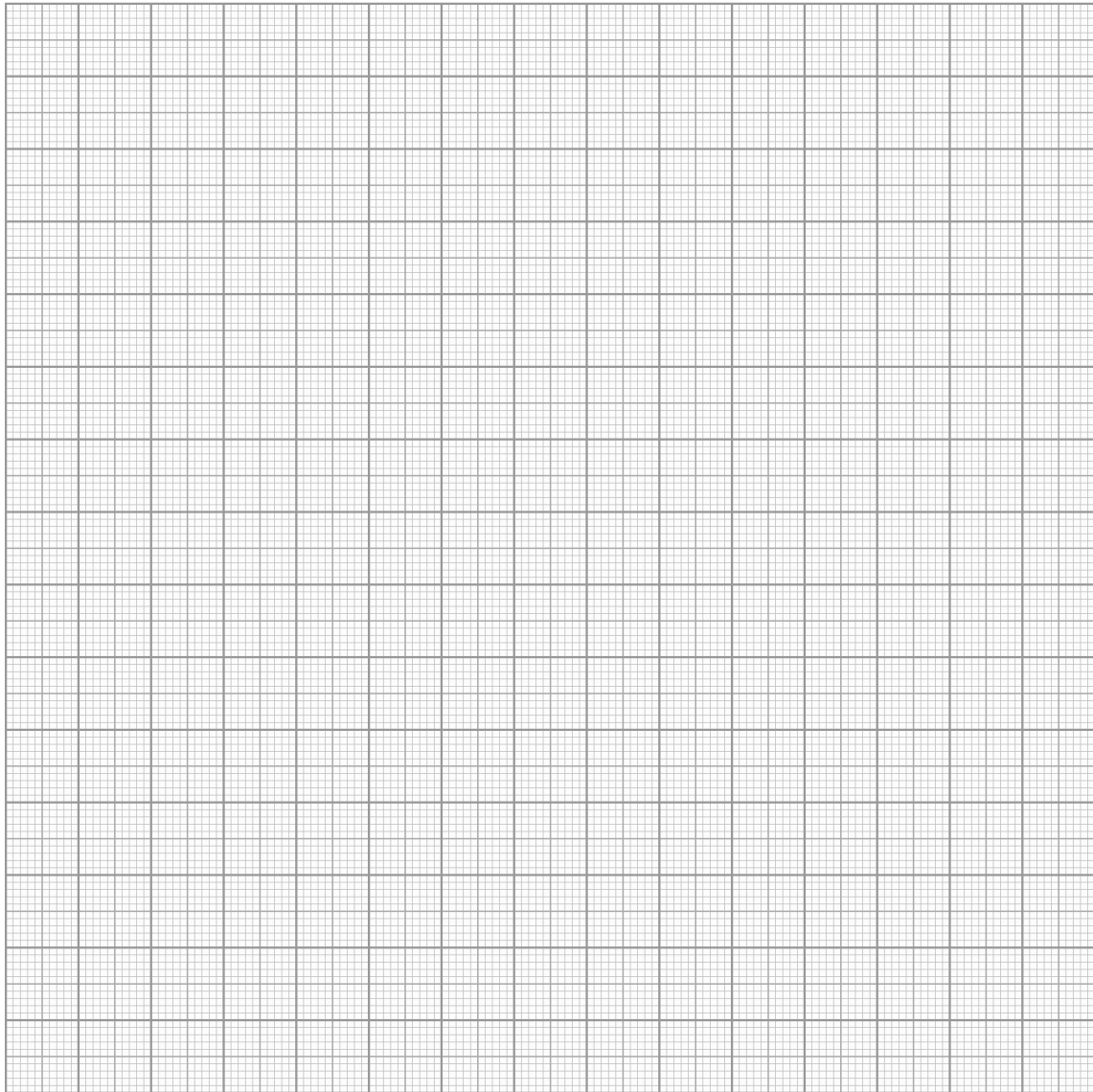
$N$	$z$ /mm	$I$ /A
0		0
1		
2		
3		
4		
5		

A.3 (0.7pt)



$a =$

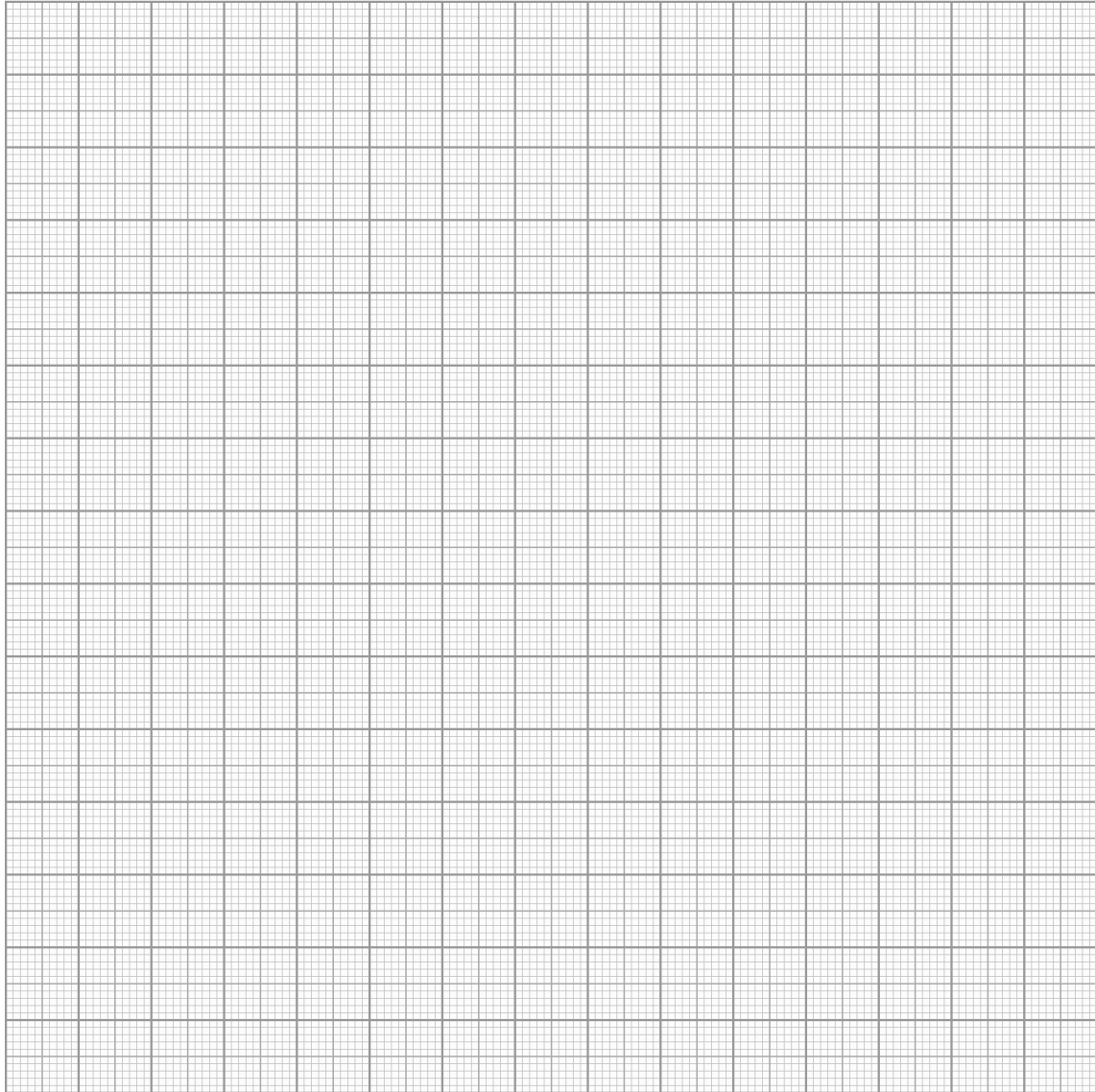
A.4 (0.7pt)



$b =$



**B.3** (0.7pt)



$c =$

**B.4** (0.4pt)

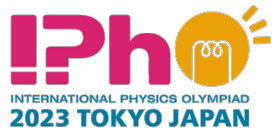
$BL =$

**B.5** (1.2pt)

$m =$

$k =$

## Experiment



# A1-7

English (Official)

### Part C: Mass dependence of resonant frequency (2.3 points)

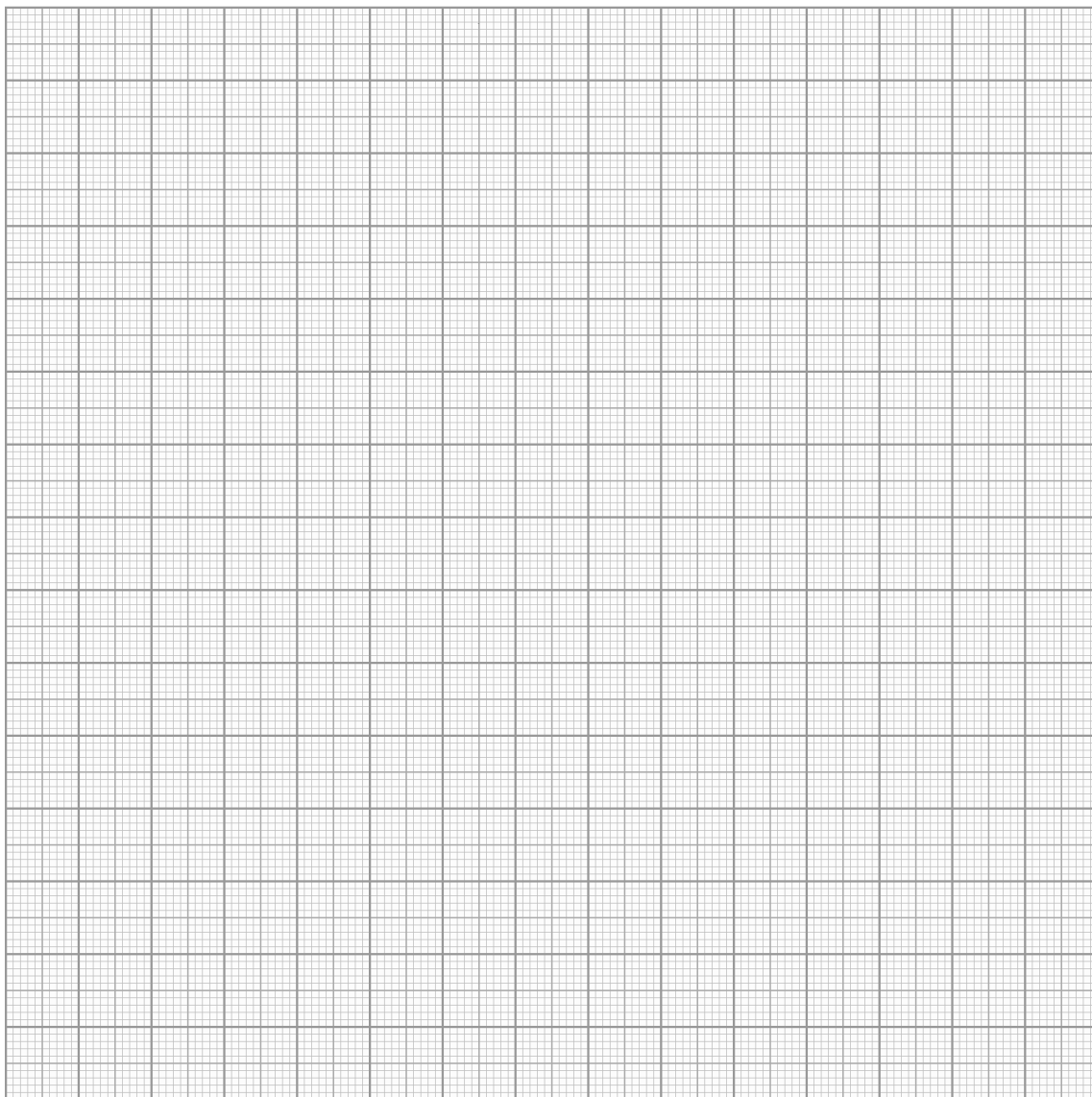
C.1 (0.2pt)

$f =$

C.2 (0.5pt)

$N$	$f$ /Hz			
0				
1				
2				
3				
4				
5				

C.3 (1.0pt)



$$\frac{M}{k'} =$$

$$\frac{m}{k'} =$$



C.4 (0.6pt)

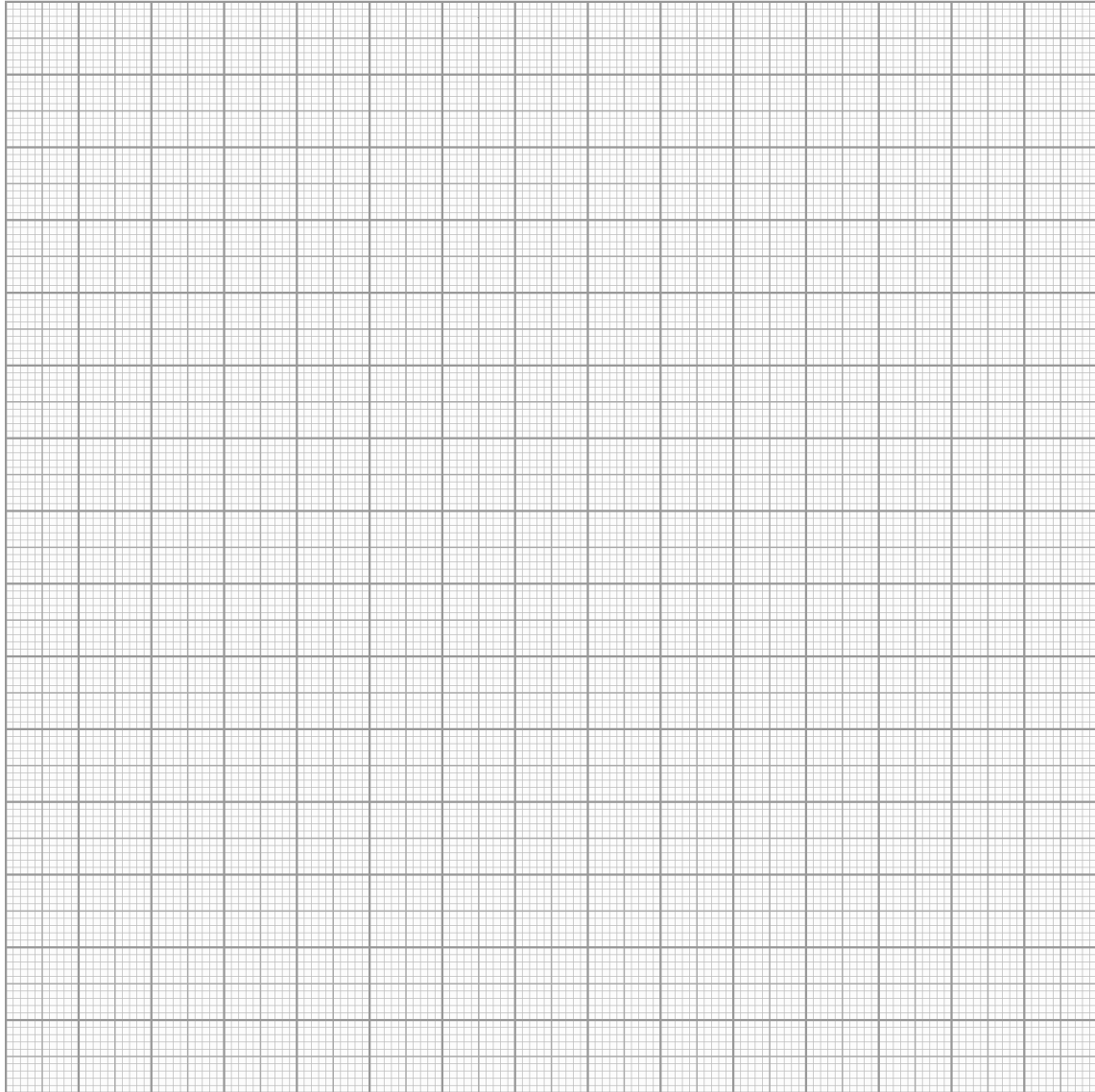
$$\frac{M}{m} =$$

$$M =$$

$$k' =$$



D.2 (cont.)



**D.3** (1.0pt)

$M =$