Communication protocol package definition

Lower computer（Data received by car）data protocol format

	header0	command bit1	separatrix2	command bit3	separatrix4	command bit5	separatrix6	command bit7	separatrix8	command bit9	separatrix10	command bit11	separatrix12	Data bits13	separatrix14	Data bits15	separatrix16	Data bits17	separatrix18	Data bits19	tail22	remark
Stop	$	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
Forward	$	1	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
Retreat	$	2	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
turn left	$	3	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
turn right	$	4	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
left rotation	$	0	,	1	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
right rotation	$	0	,	2	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
query PID	$	0	,	0	,	1	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
Restore the original PID	$	0	,	0	,	2	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	
Automatical report	$	0	,	0	,	0	,	1	,	0	,	0	,	0	,	0	,	0	,	0	#	
Stop report	$	0	,	0	,	0	,	2	,	0	,	0	,	0	,	0	,	0	,	0	#	
Angle PID update	$	0	,	0	,	0	,	0	,	1	,	0	,	0	,	0	,	0	,	0	#	
Speed PID update	$	0	,	0	,	0	,	0	,	0	,	1	,	0	,	0	,	0	,	0	#	
AP	$	0	,	0	,	0	,	0	,	0	,	0	,	AP Data bits	,	0	,	0	,	0	#	
AD	$	0	,	0	,	0	,	0	,	0	,	0	,	0	,	AD Data bits	,	0	,	0	#	
VP	$	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	VP Data bits	,	0	#	
VI	$	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	VI Data bits	#	
	$	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	,	0	#	

Example data：Forward

'$1,0,0,0,0,0,0,0,0#'

Example data：update AP,AD

'$0,0,0,1,0,AP23.4,AD0.45,VP0,VI0#'

Uplink data protocol format

	header	Data bits1	separatrix1	Data bits2	separatrix2	Data bits3	separatrix3	Data bits4	separatrix4	Data bits5	separatrix5	Data bits6	tail
Left speed	$	LVx	,	RV	,	AC	,	GY	,	CSB	,	VI	#
Right speed	$	LV	,	RVx	,	AC	,	GY	,	CSB	,	VI	#
ACCEL add speed	$	LV	,	RV	,	ACx	,	GY	,	CSB	,	VI	#
GYRO gyroscope	$	LV	,	RV	,	AC	,	GYx	,	CSB	,	VI	#
Ultrasonic	$	LV	,	RV	,	AC	,	GY	,	CSBx	,	VI	#
Voltage	$	LV	,	RV	,	AC	,	GY	,	CSB	,	VIx	#

Example date：Left speed20.5 Right speed33.2 accelerated speed140 gyroscope40 Ultrasonic50 Voltage12.3v

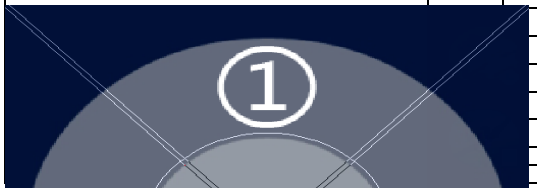
'$LV20.5,RV33.2,AC140,GY40,CSB50,VI12.3#'

Lower computer data protocol format：'$0,0,0,0,0,0,0,0,0,0#' Floating point string

Uplink data protocol format：'$LVx,RVx,ACx,GYx,CSBx,VIx#' Floating point string

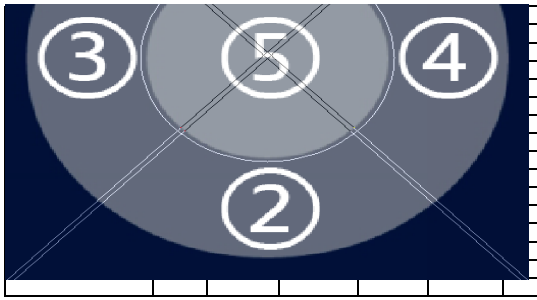
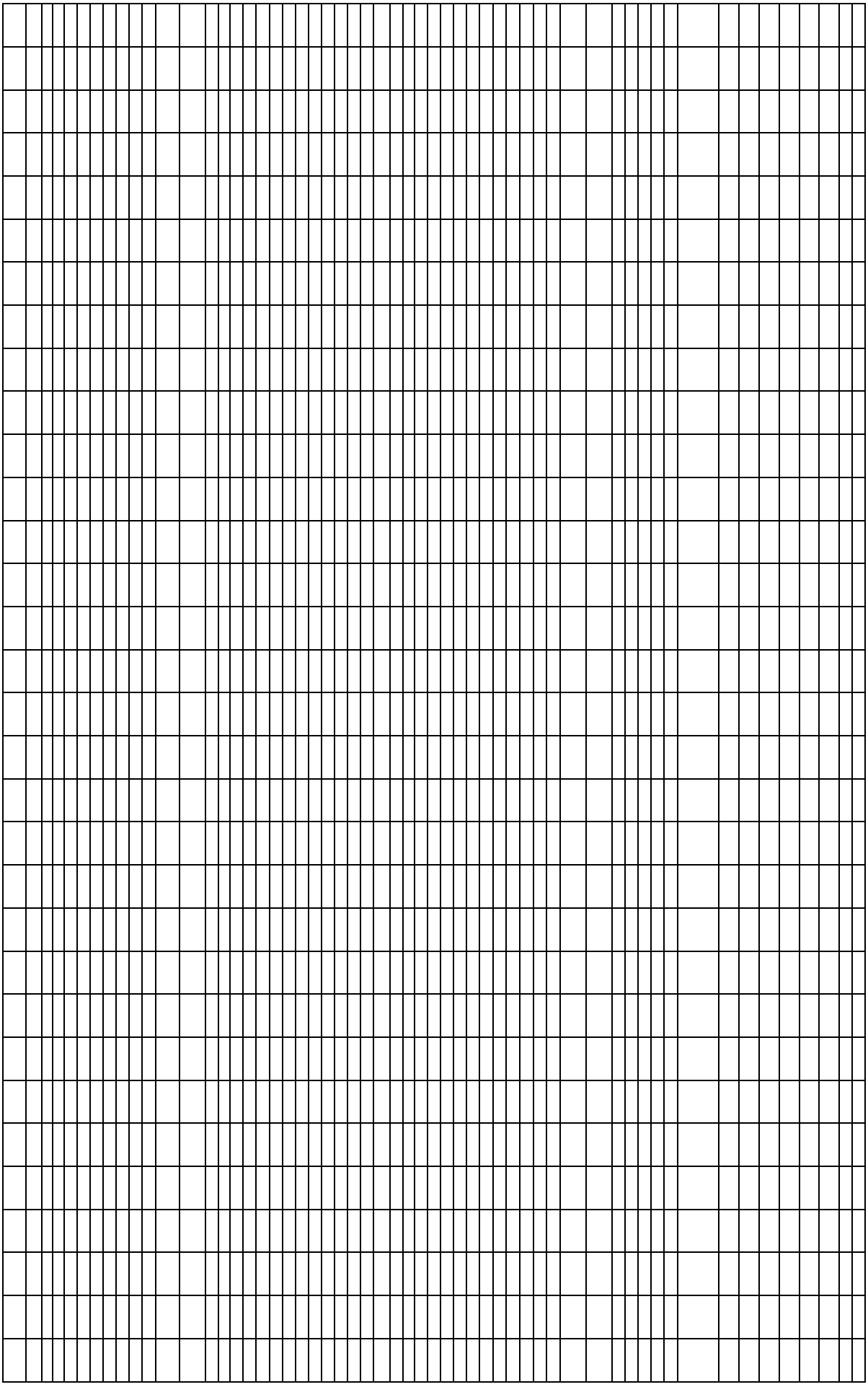
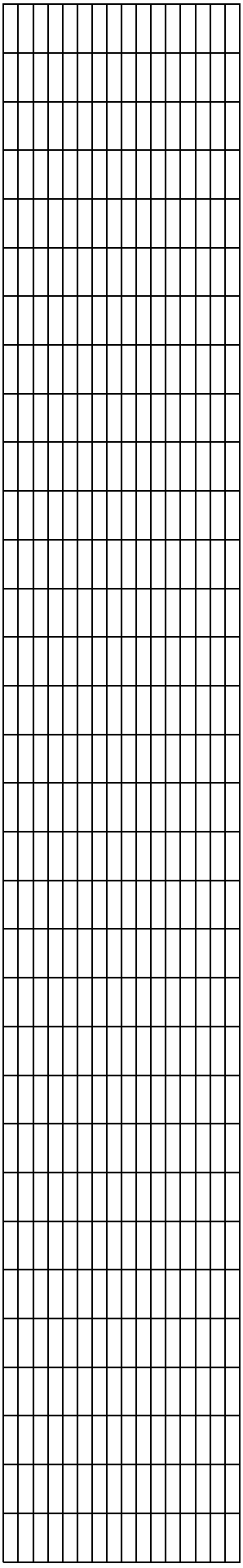
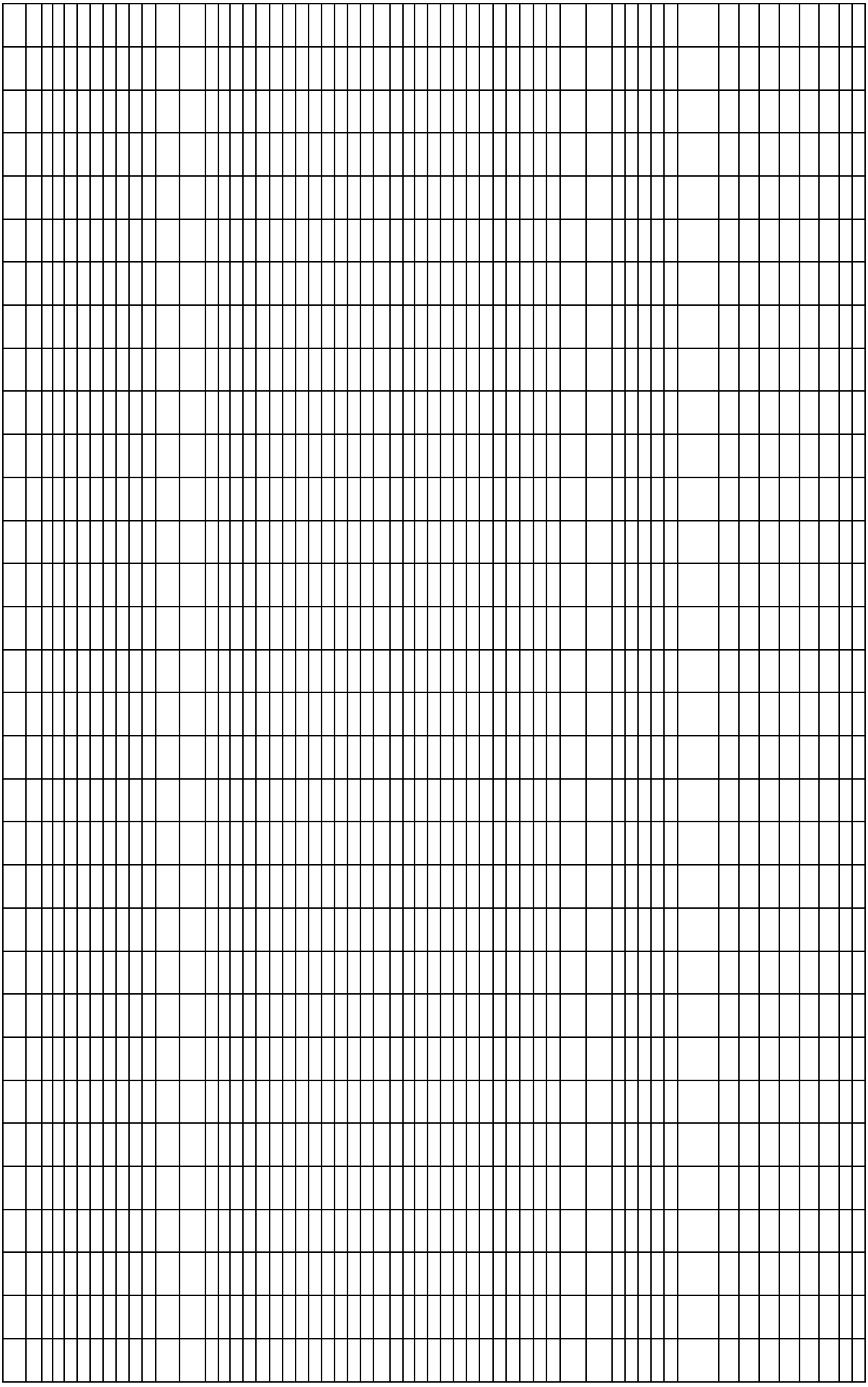
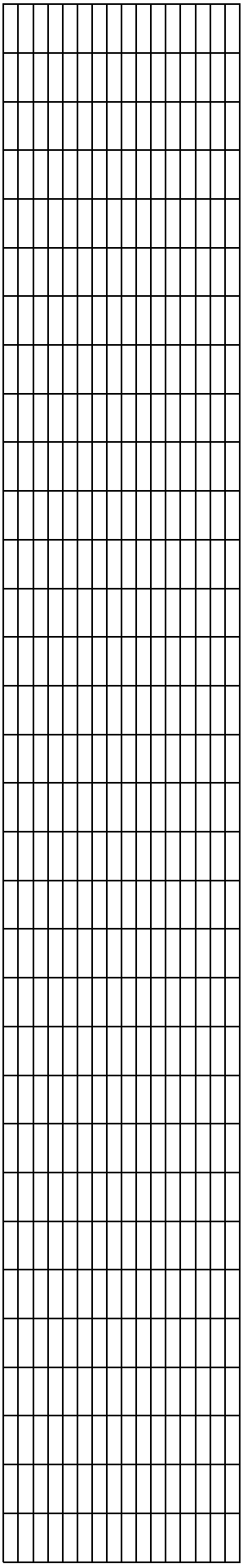
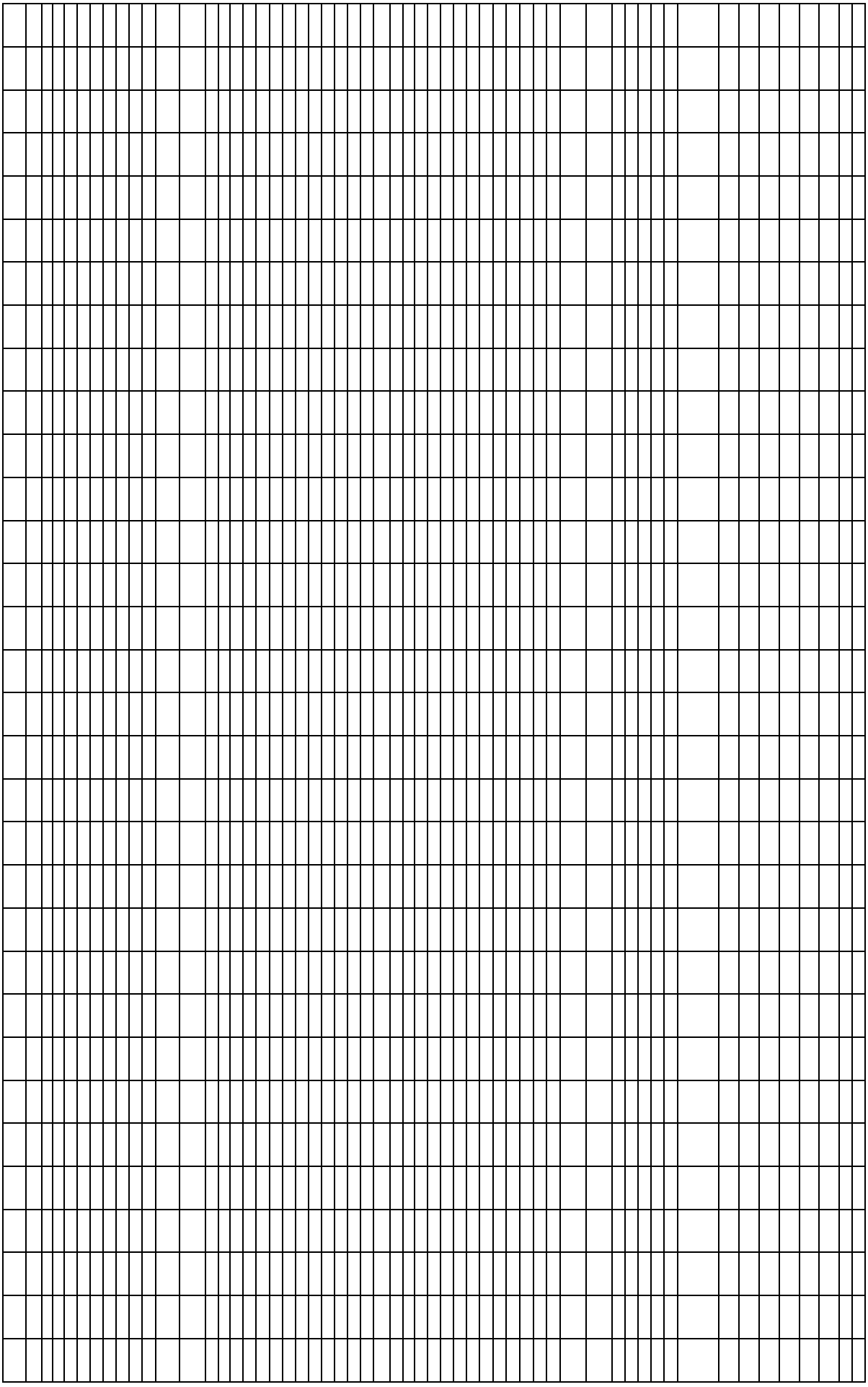
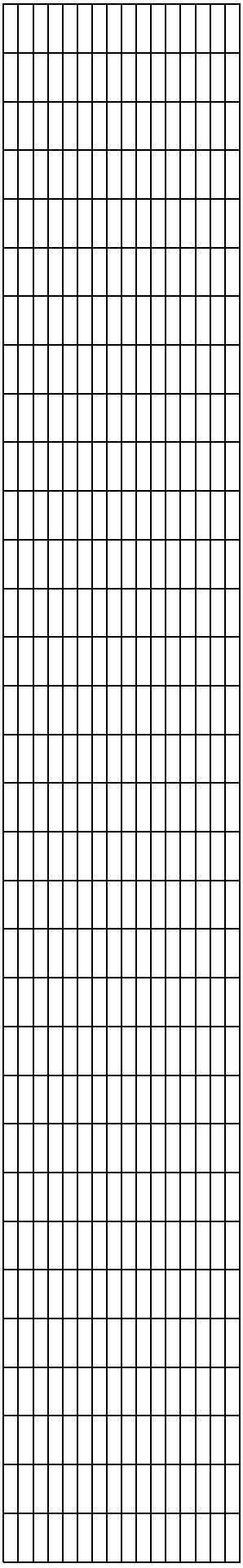
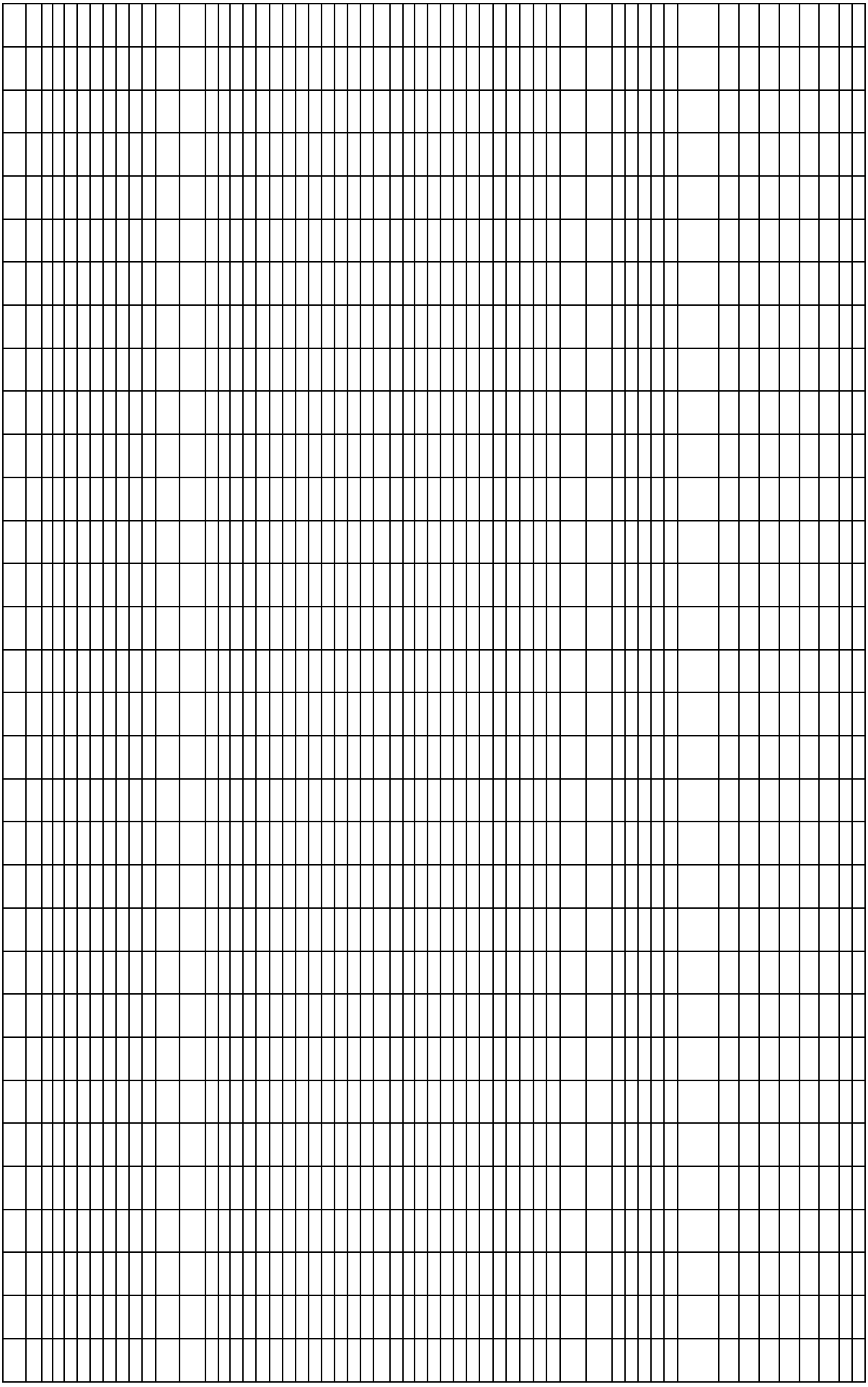
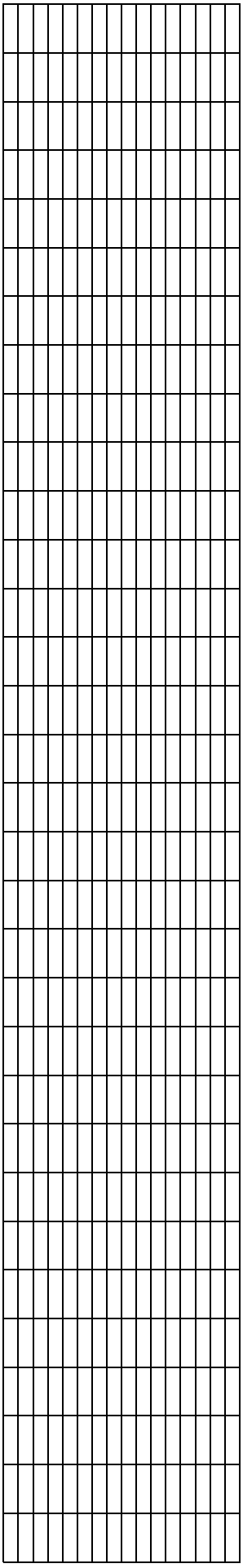
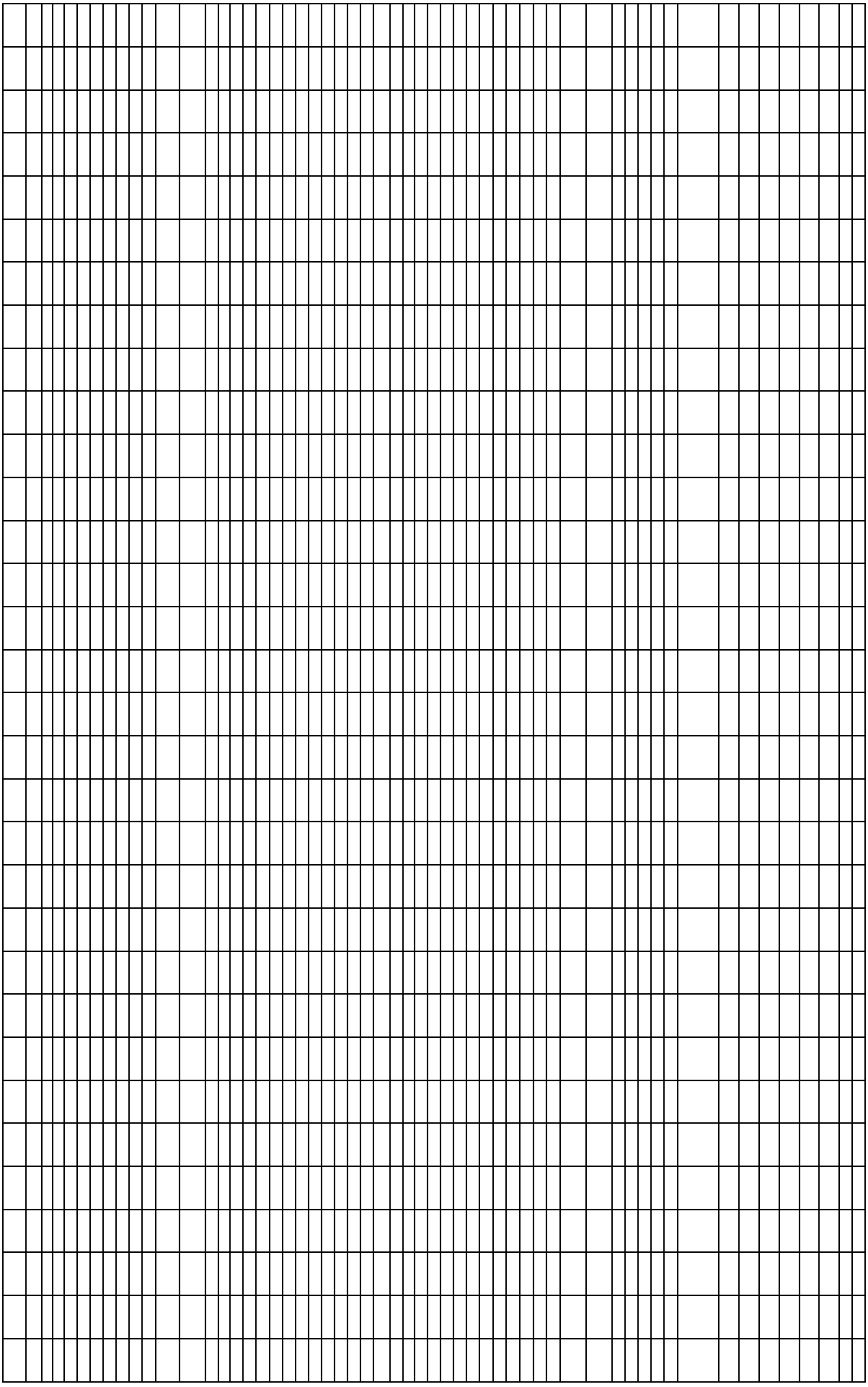
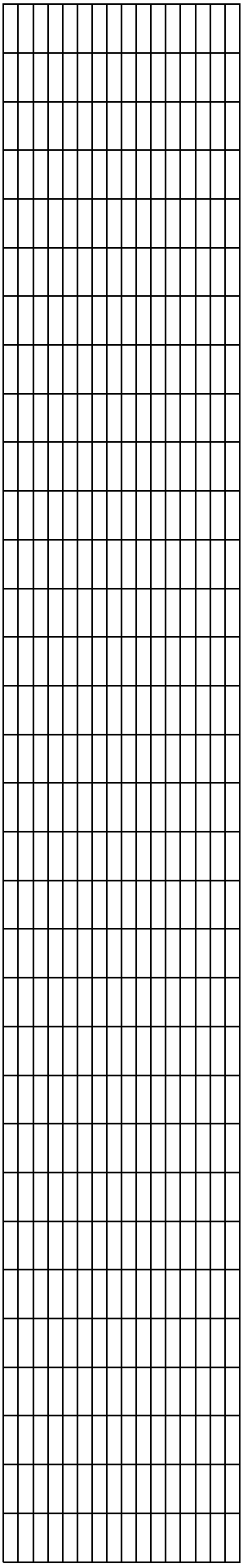
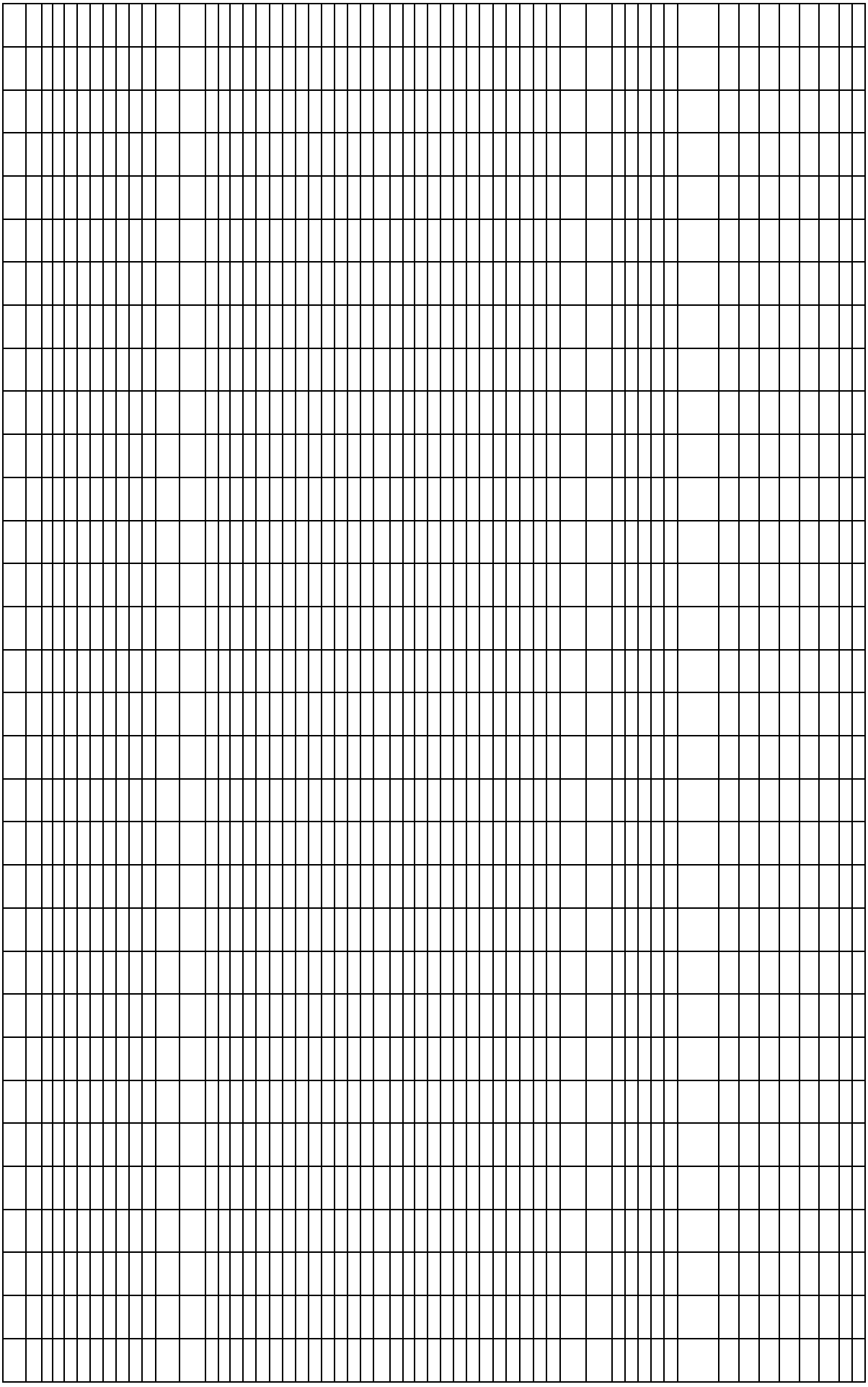
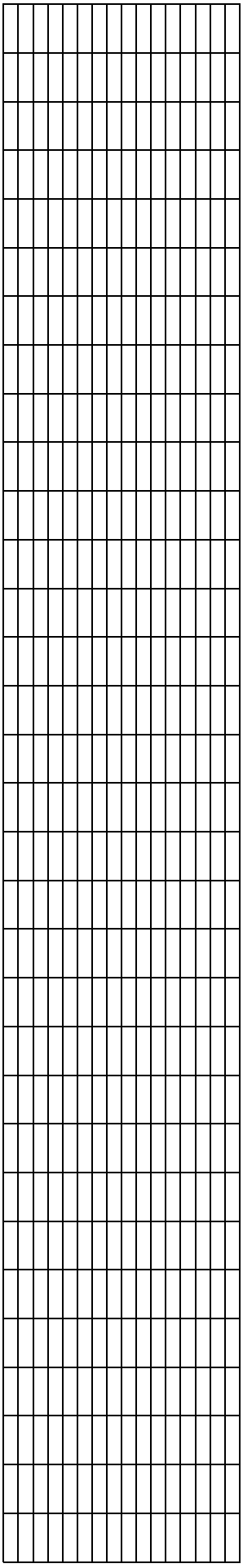
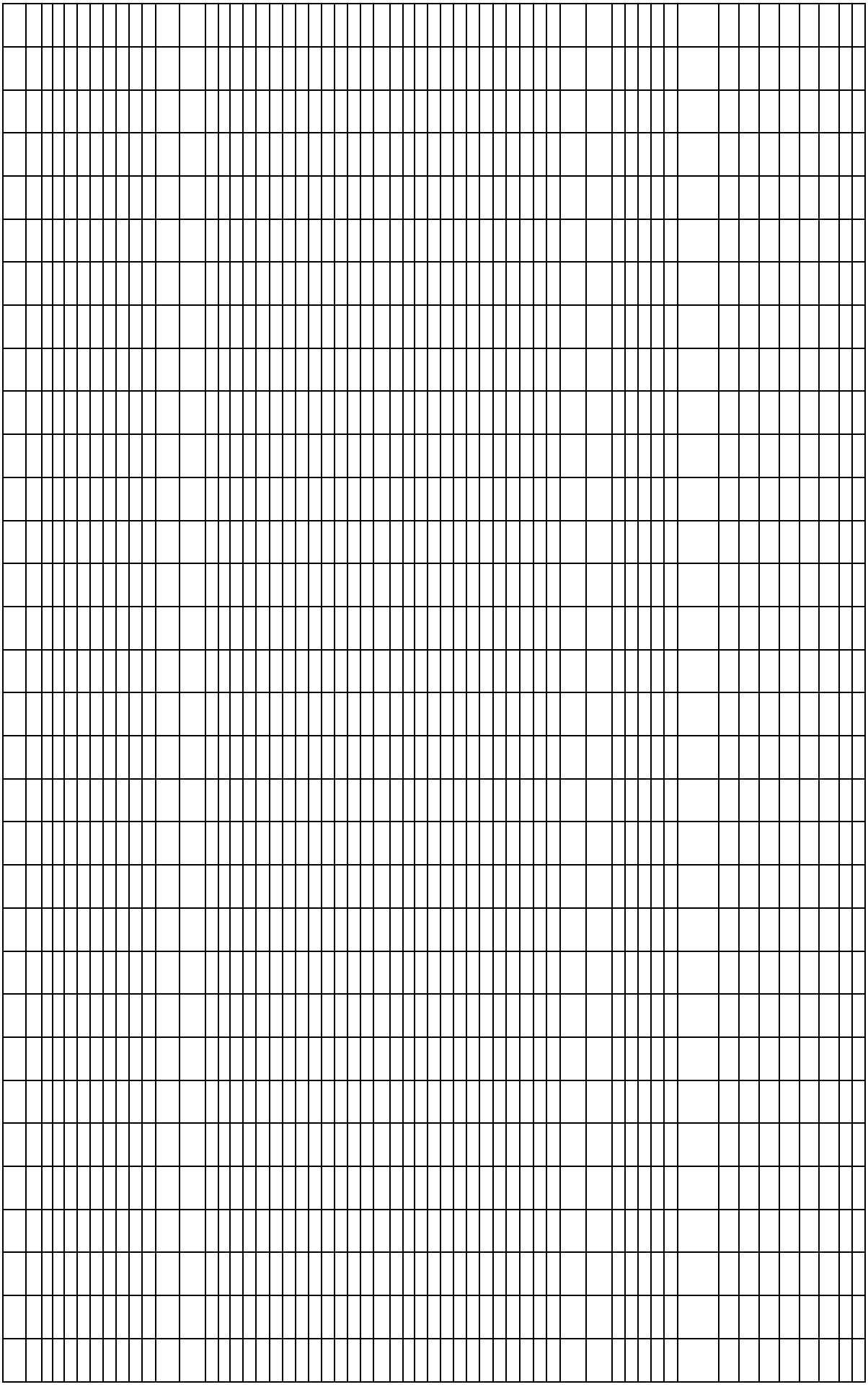
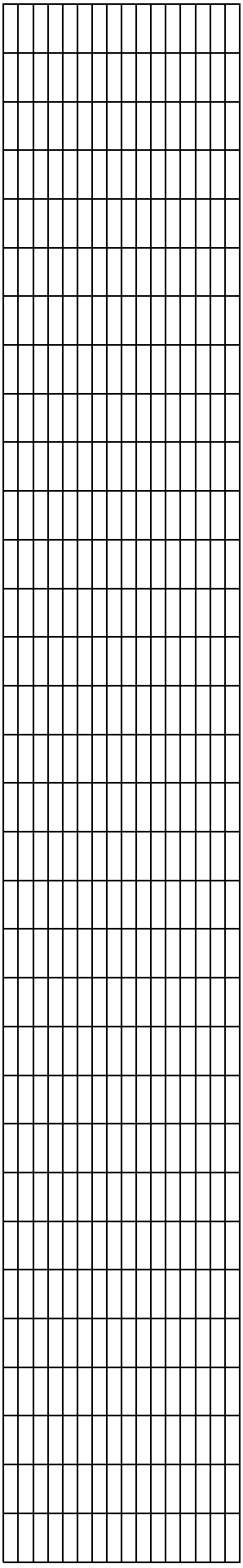
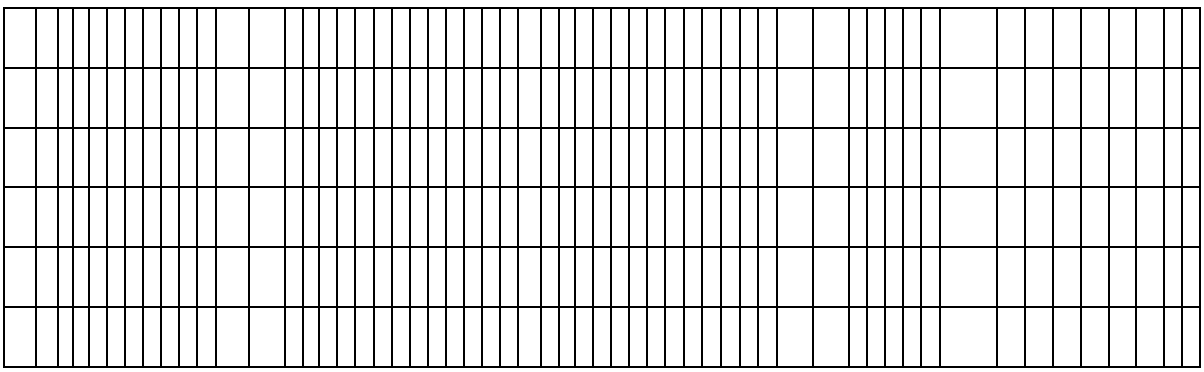
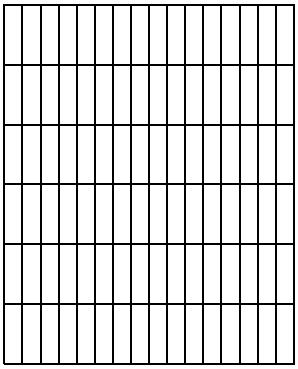
Note：Upper computer data is sent and received in string format. When compiling the lower computer (car) program, it needs to convert between Numbers and strings before it can be used.

Uplink data protocol format



	Area	comman	order format
rocker	①	forward	'$1,0,0,0,0,0,0,0,0,0#'
	②	Retreat	'$2,0,0,0,0,0,0,0,0,0#'
	③	Left	'$3,0,0,0,0,0,0,0,0,0#'
	④	Right	'$4,0,0,0,0,0,0,0,0,0#'
	⑤	Stop	'$0,0,0,0,0,0,0,0,0,0#'

Remark：Release the rocker and automatically return to the region5


3
5
4
2

Key
Gravit y
Rocker
L-motor speed
Motor speed display
Gravity display
X:9.8
Y:9.2
Z:-1.3
Ultrasonic distance: cm
120
Battery voltage: v
8.4
R-motor speed
Home
PID
Wave
About