

Michael Morrison

notes

Interdependent Free-Fall
Reconnaissance Trajectories

Feb. 20 1962

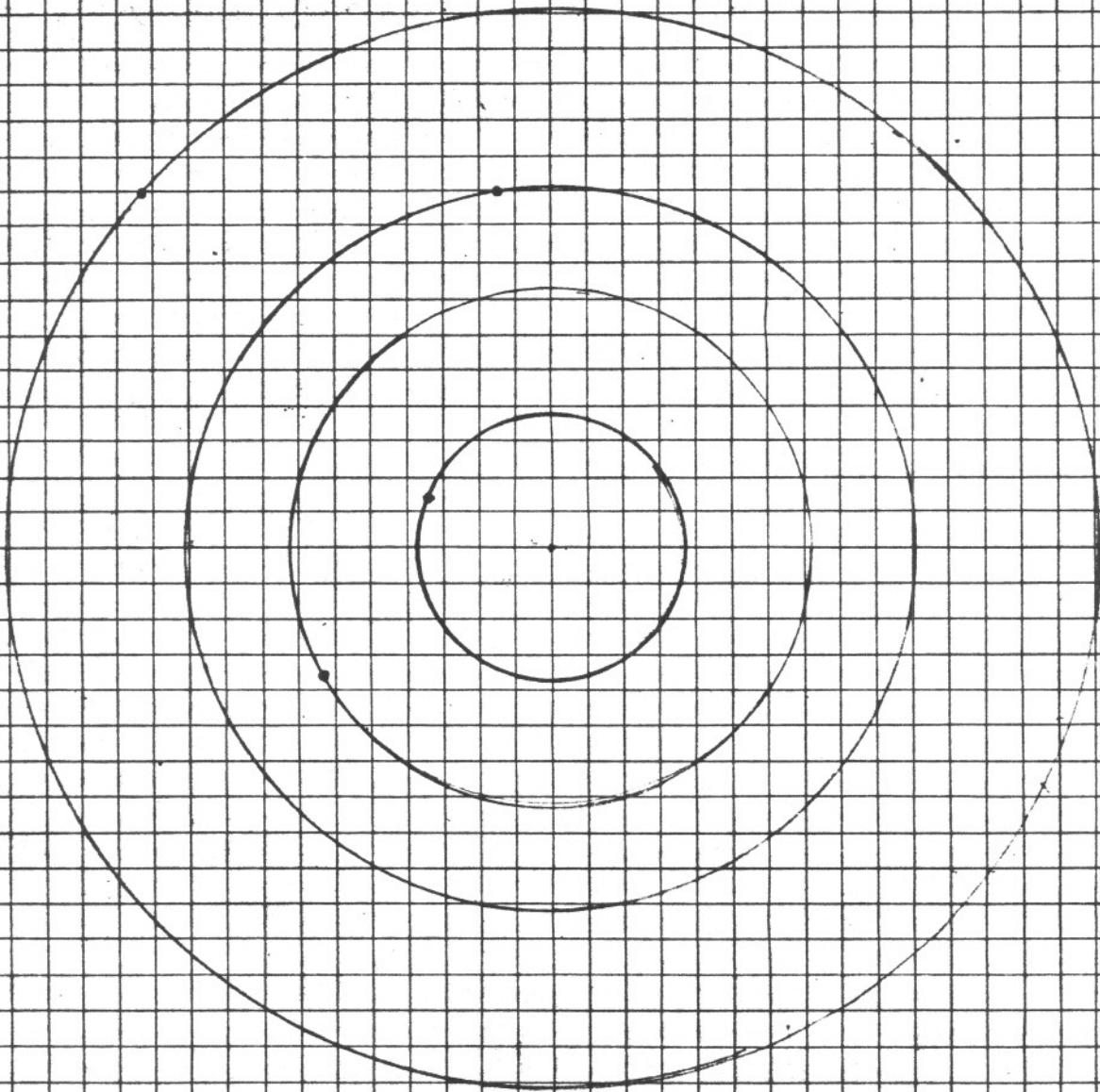
MA 11

Begin tests of
one-way program

Jan 1 1965

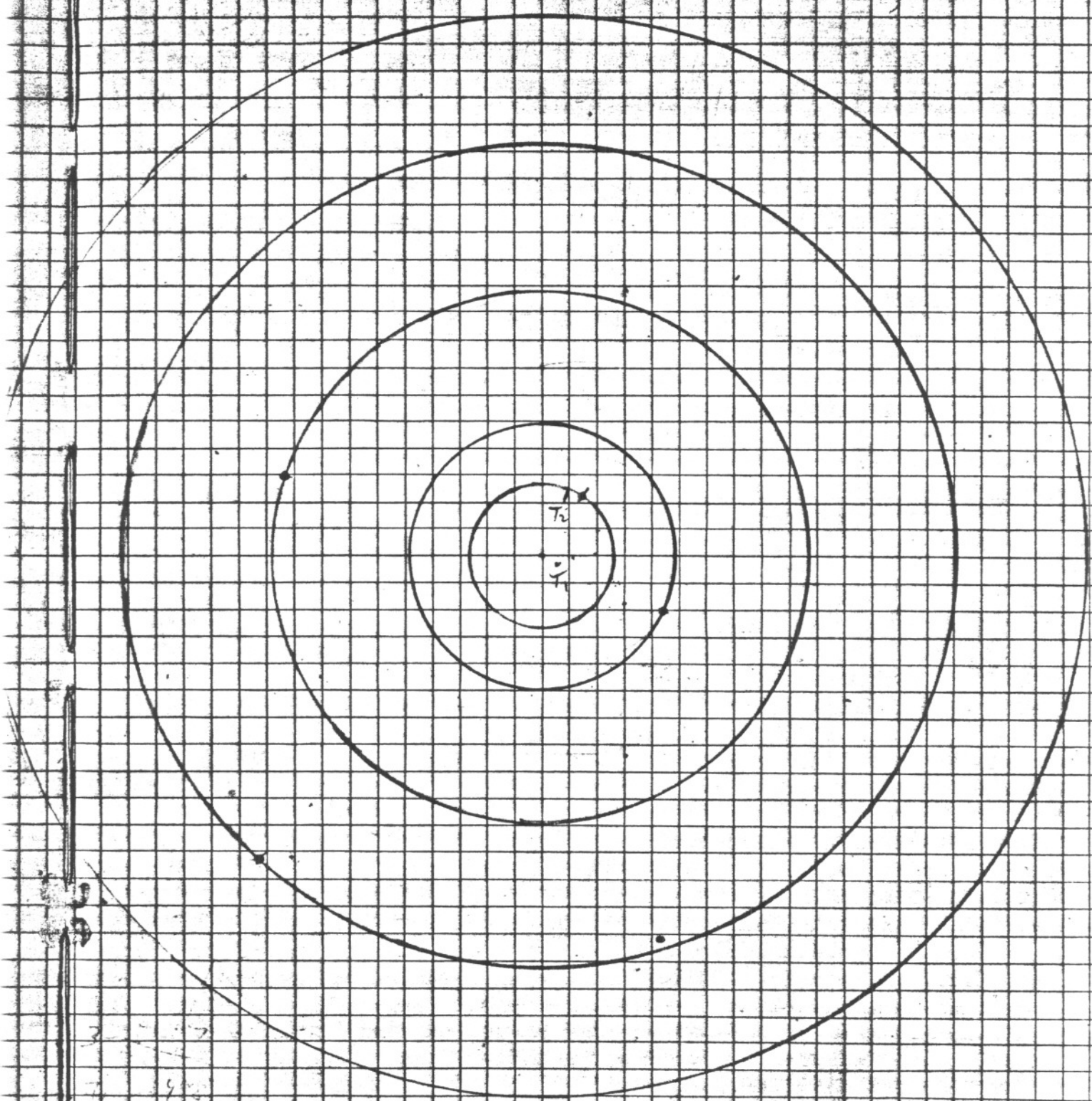
28761

Plants 1-4



Jan 1 1951

Plate 5-2



3 - 7

4 - 2

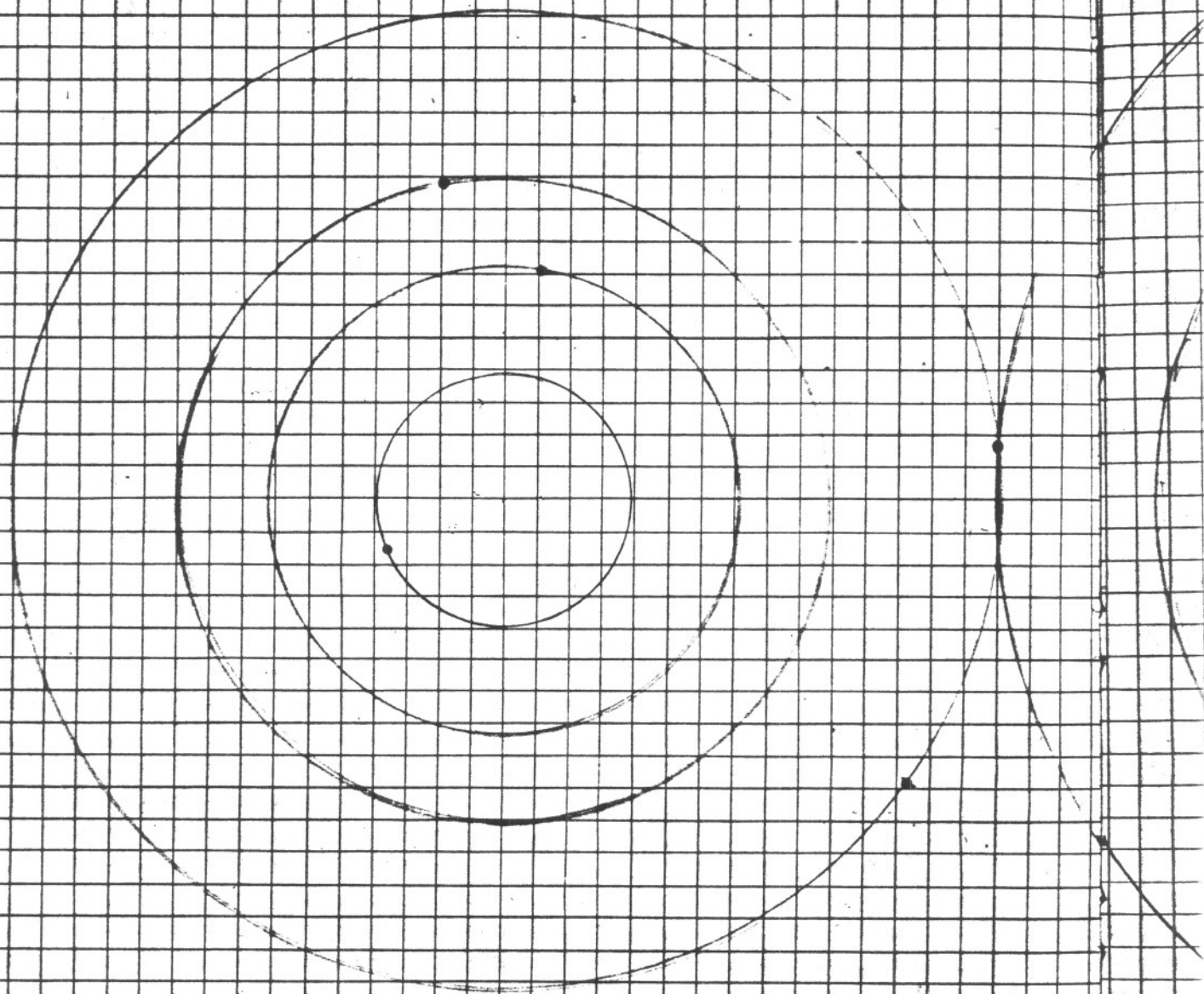
6 - 11/10/51

1

Jan 1 1966

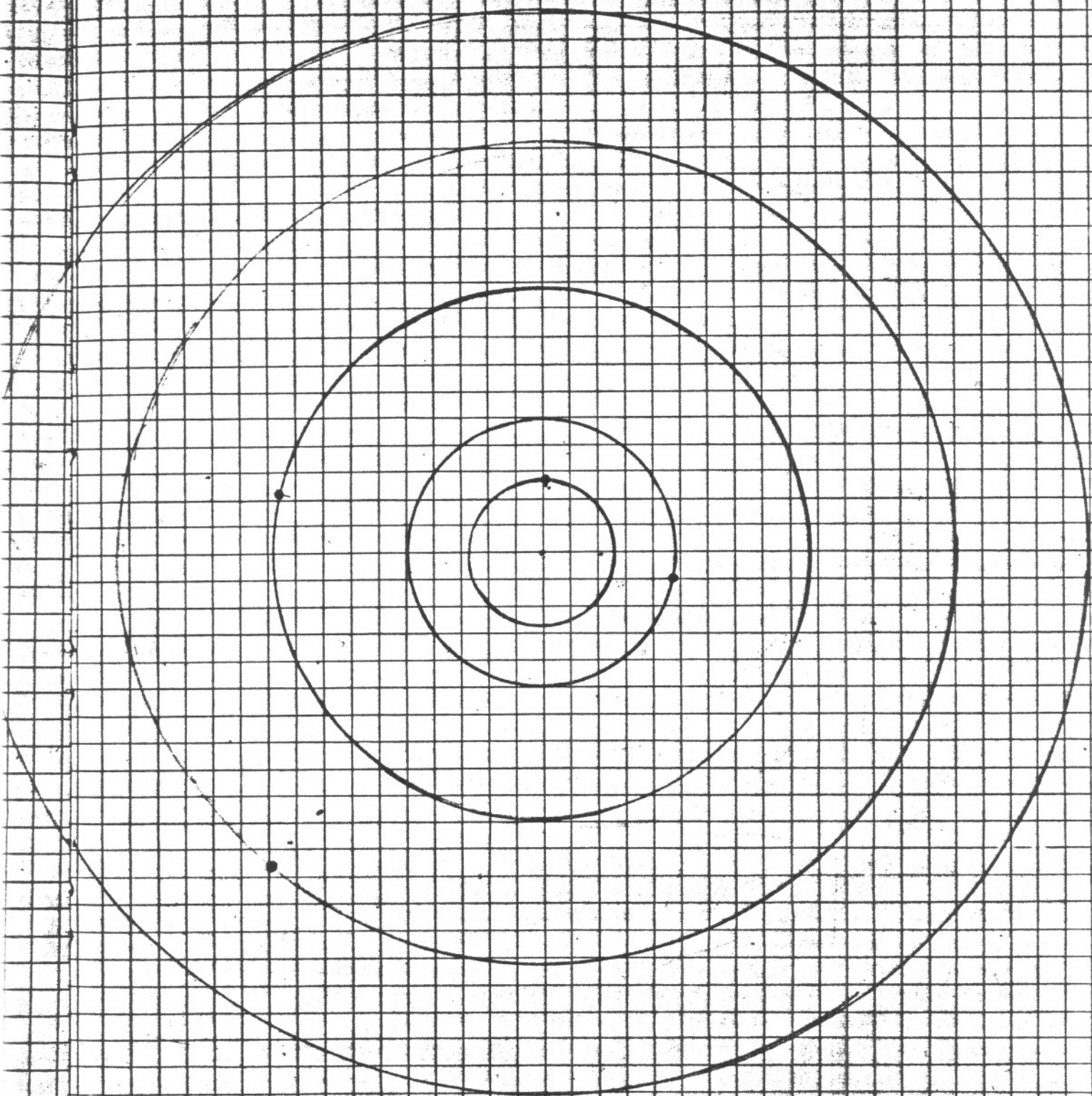
39124

Planets 1-4

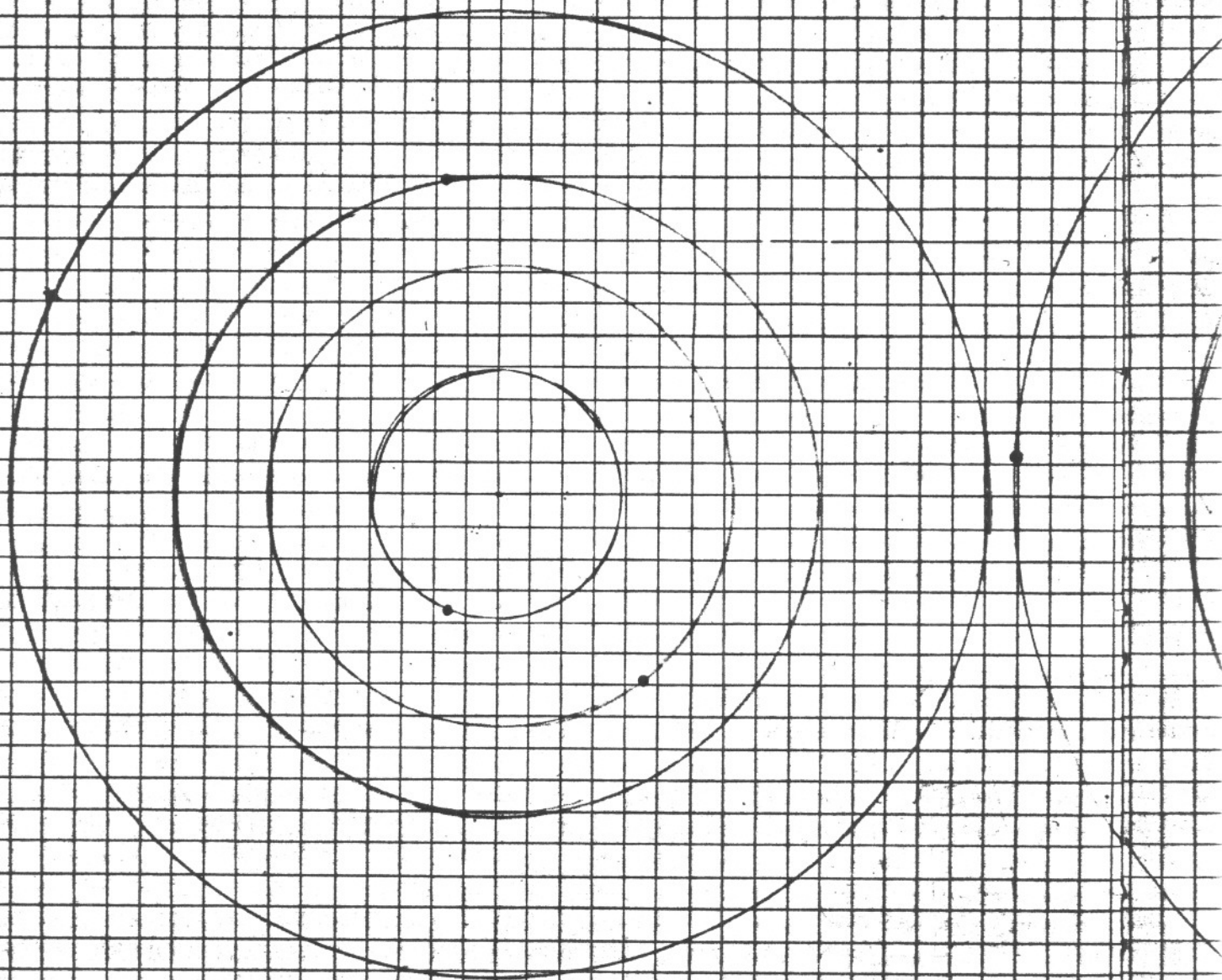


Jan 1 1965

Plate 5-9

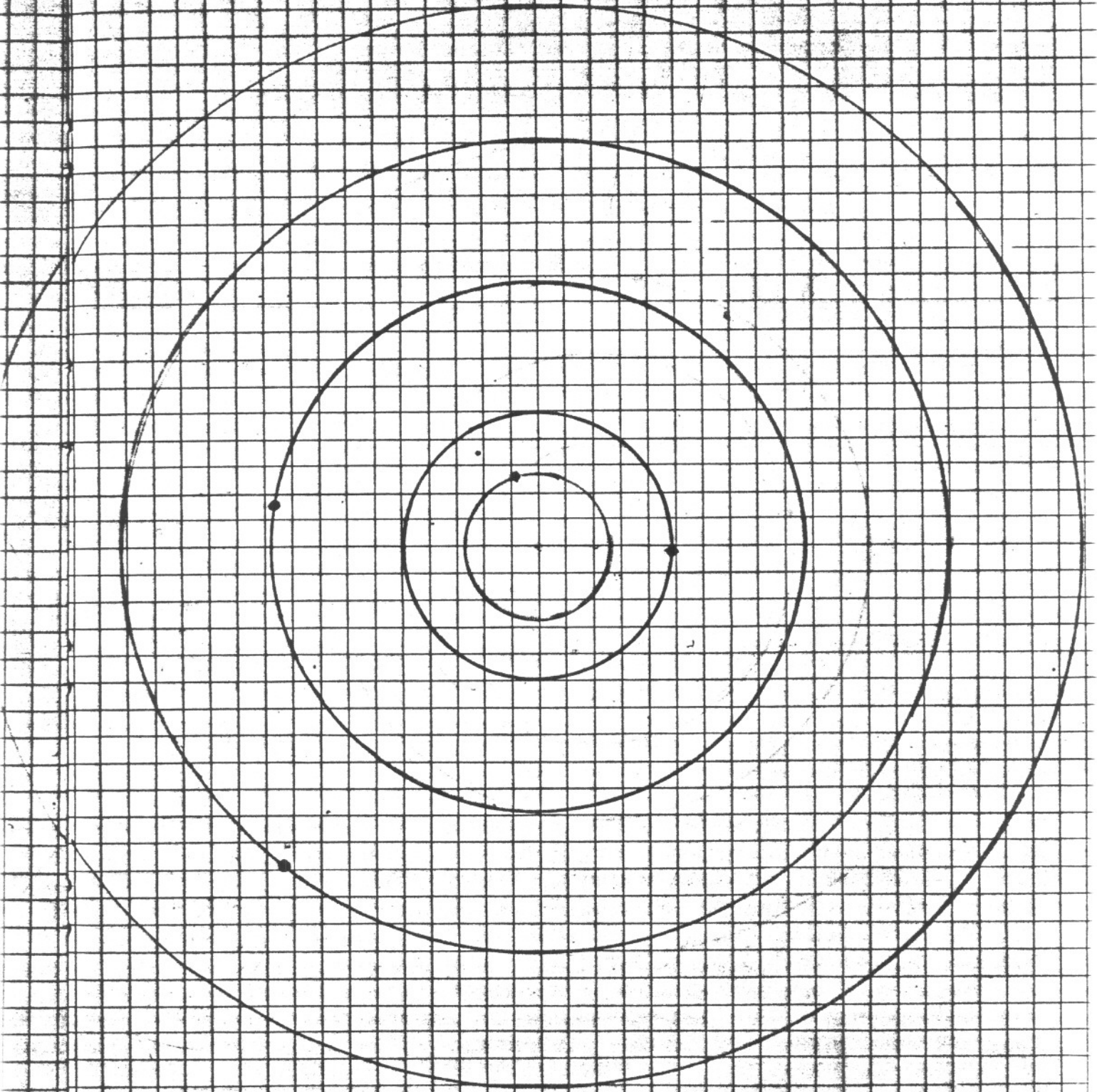


Jan 1. 1957 37491 Plate 1-4

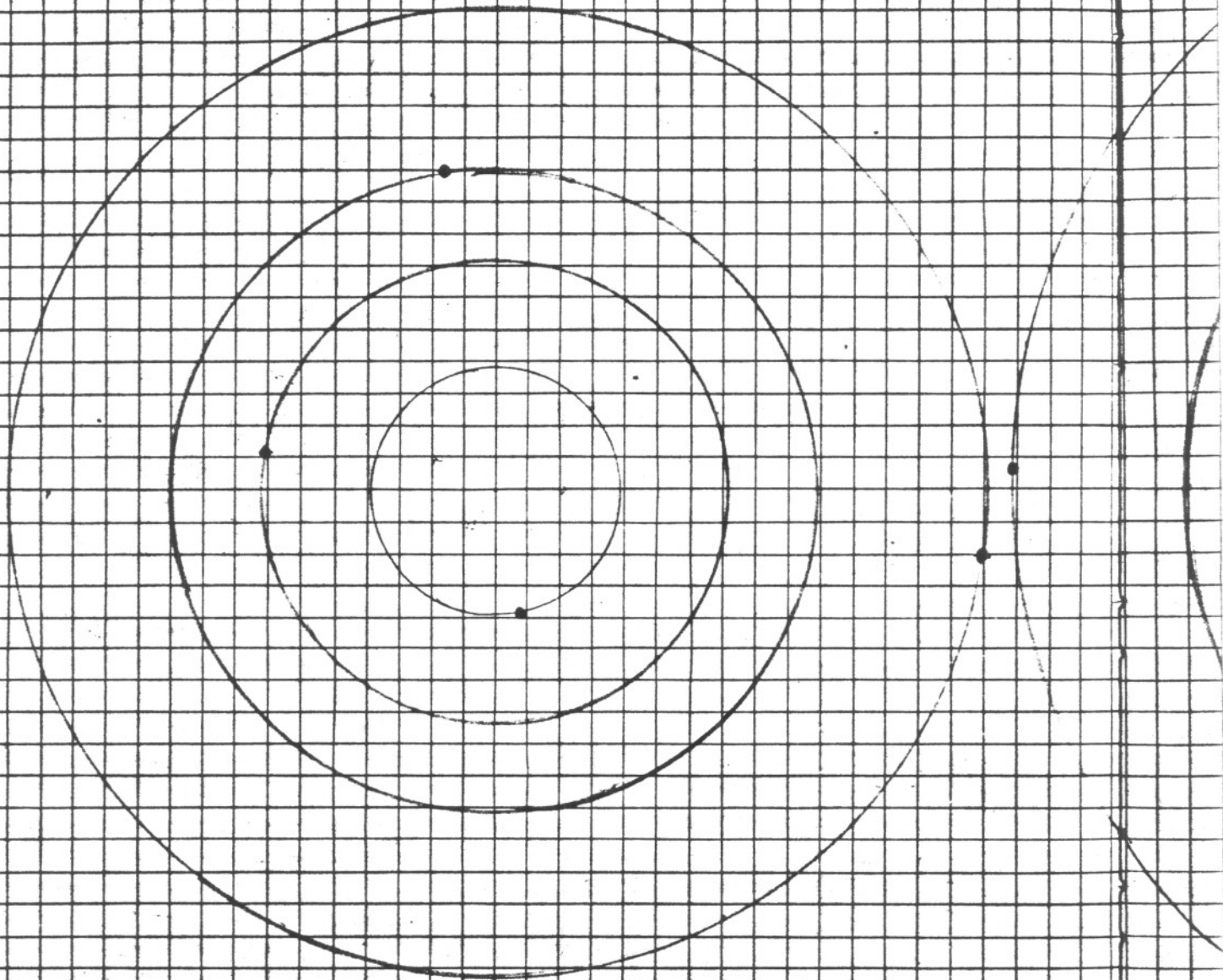


Jan 1 1967

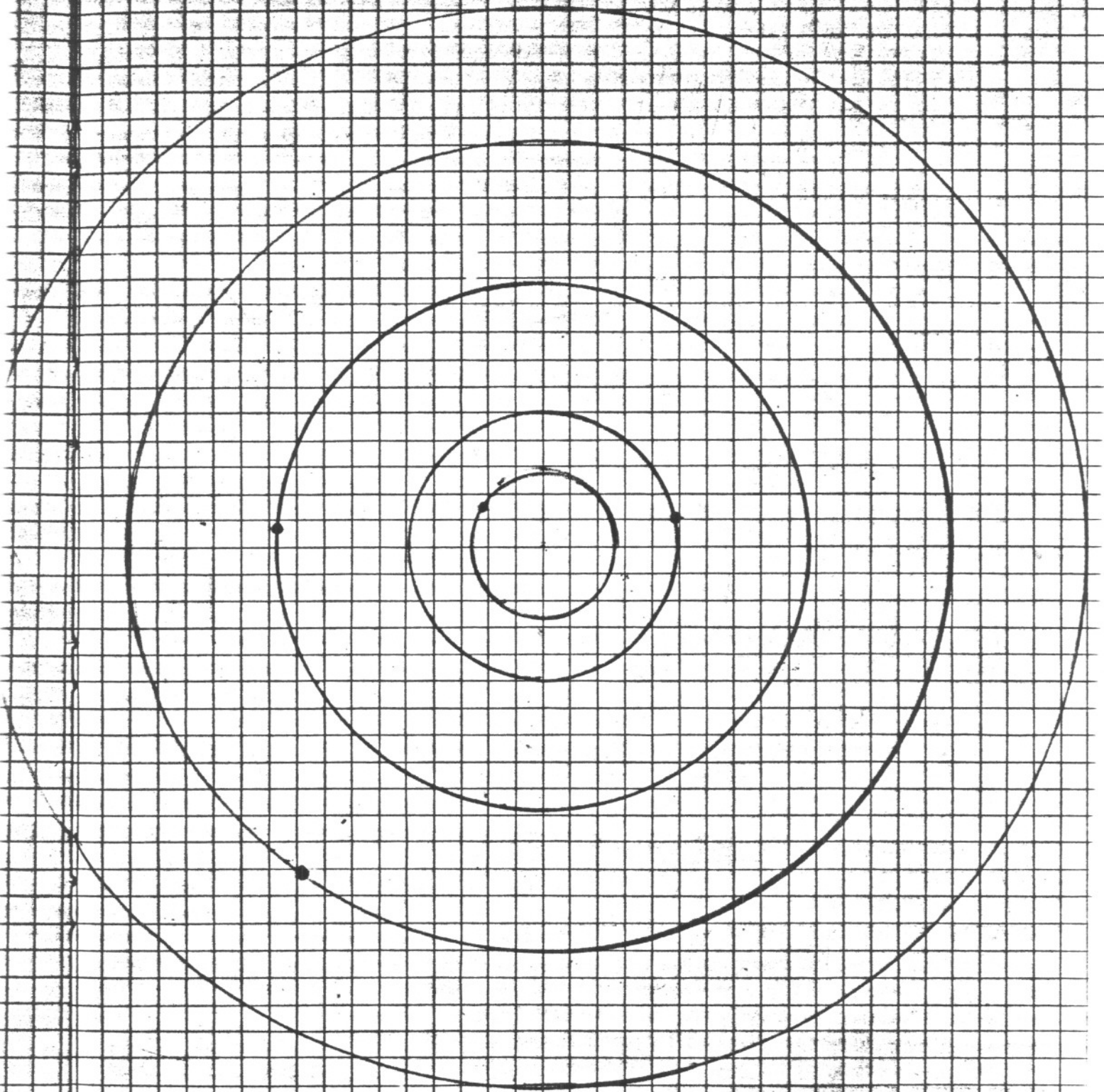
Planets 5-8



Jan 1 1768 398.56. planeta 1-4



Jan 1, 1968 - 1 - 9



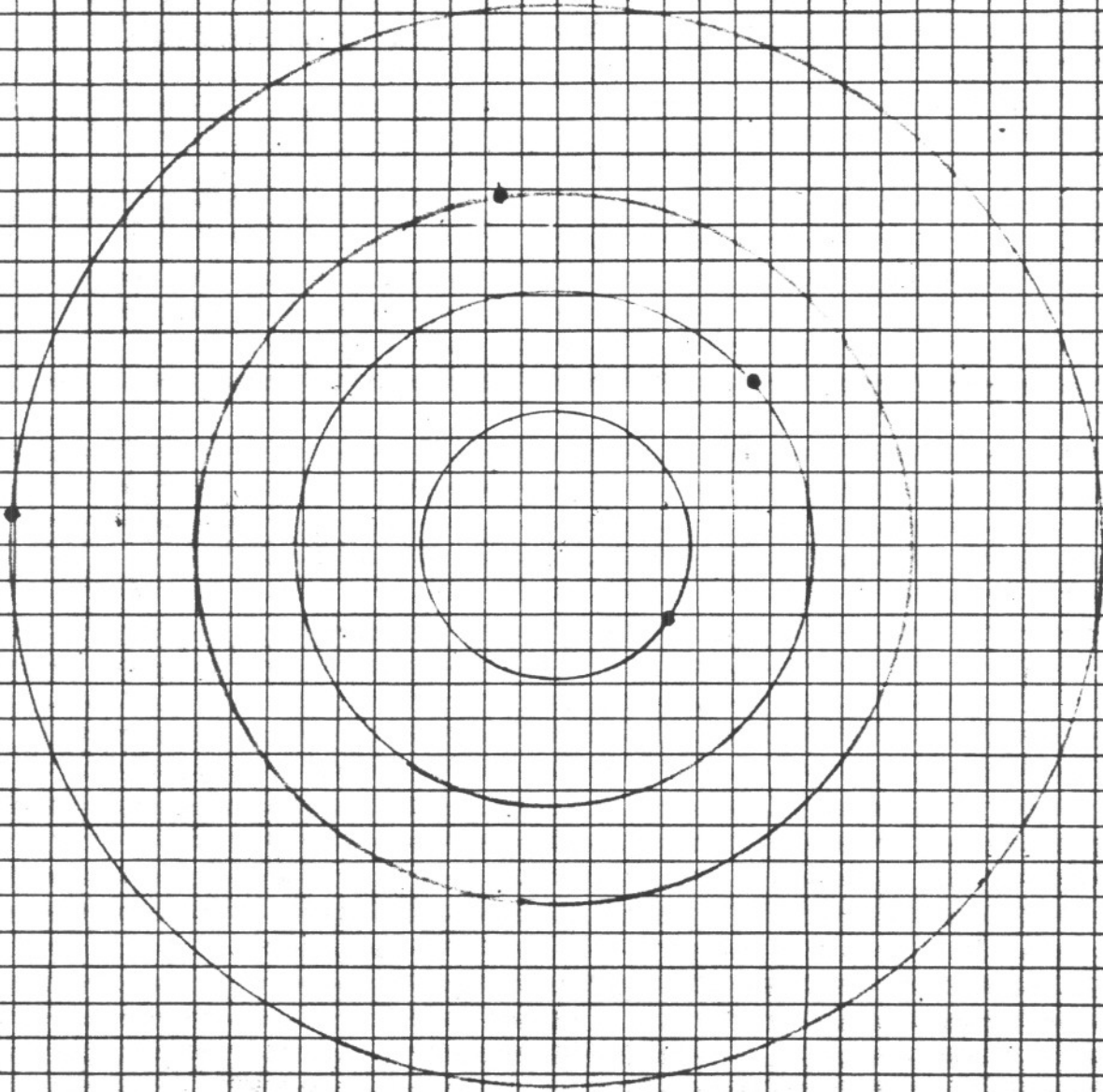
Jan 1

1969

40322

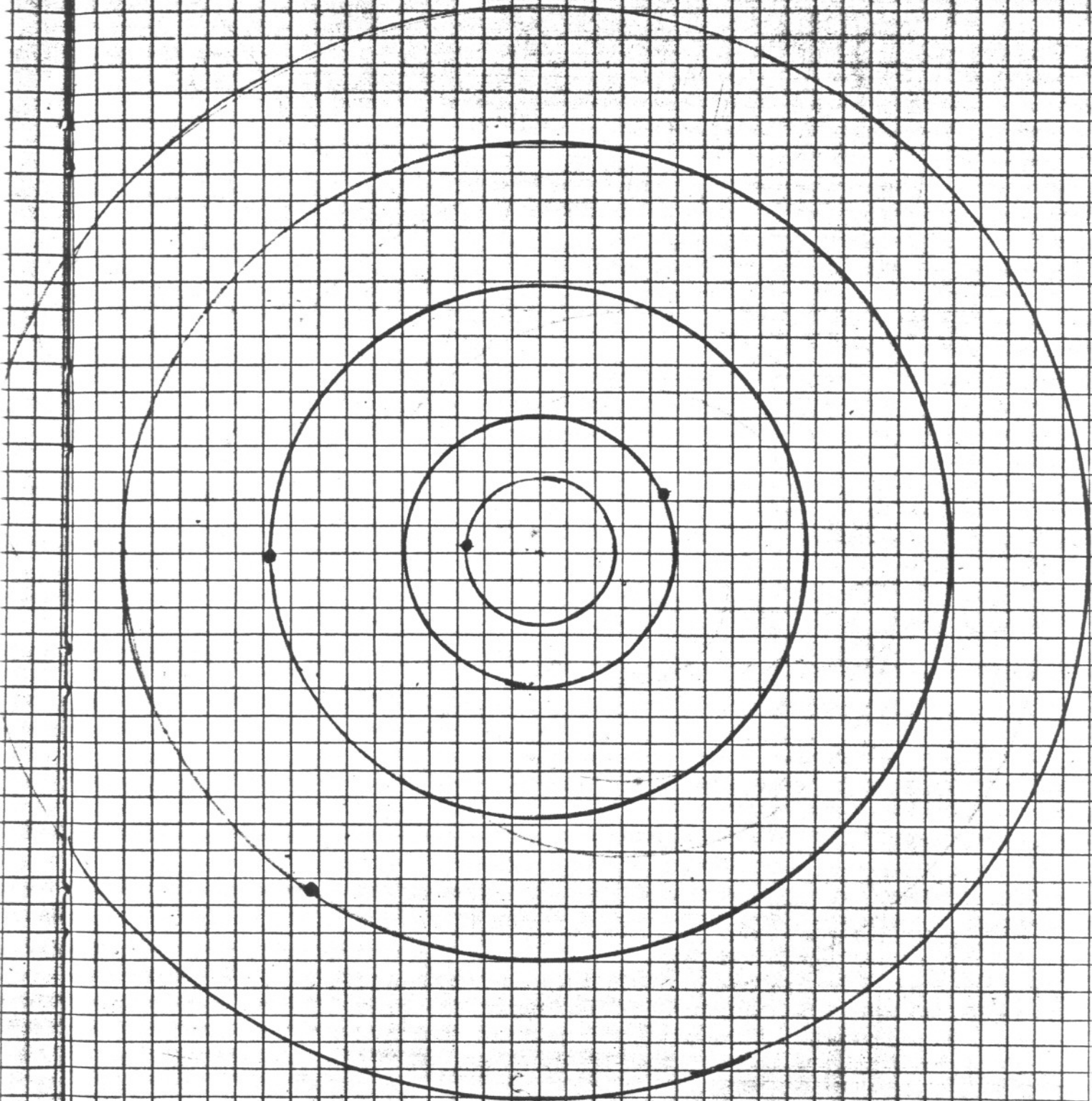
planets

1-4

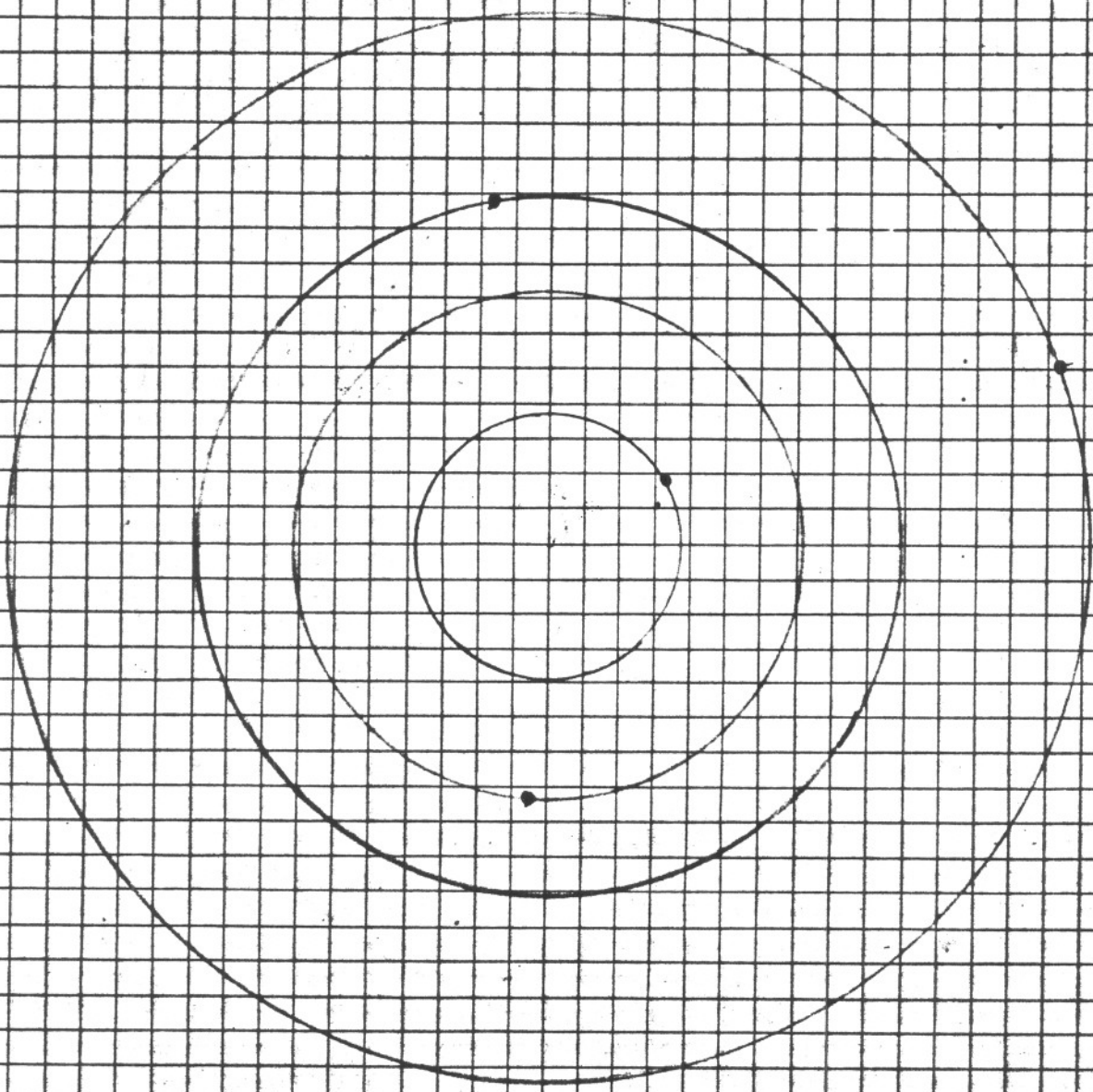


Jan 1 1969

Planet 5-9

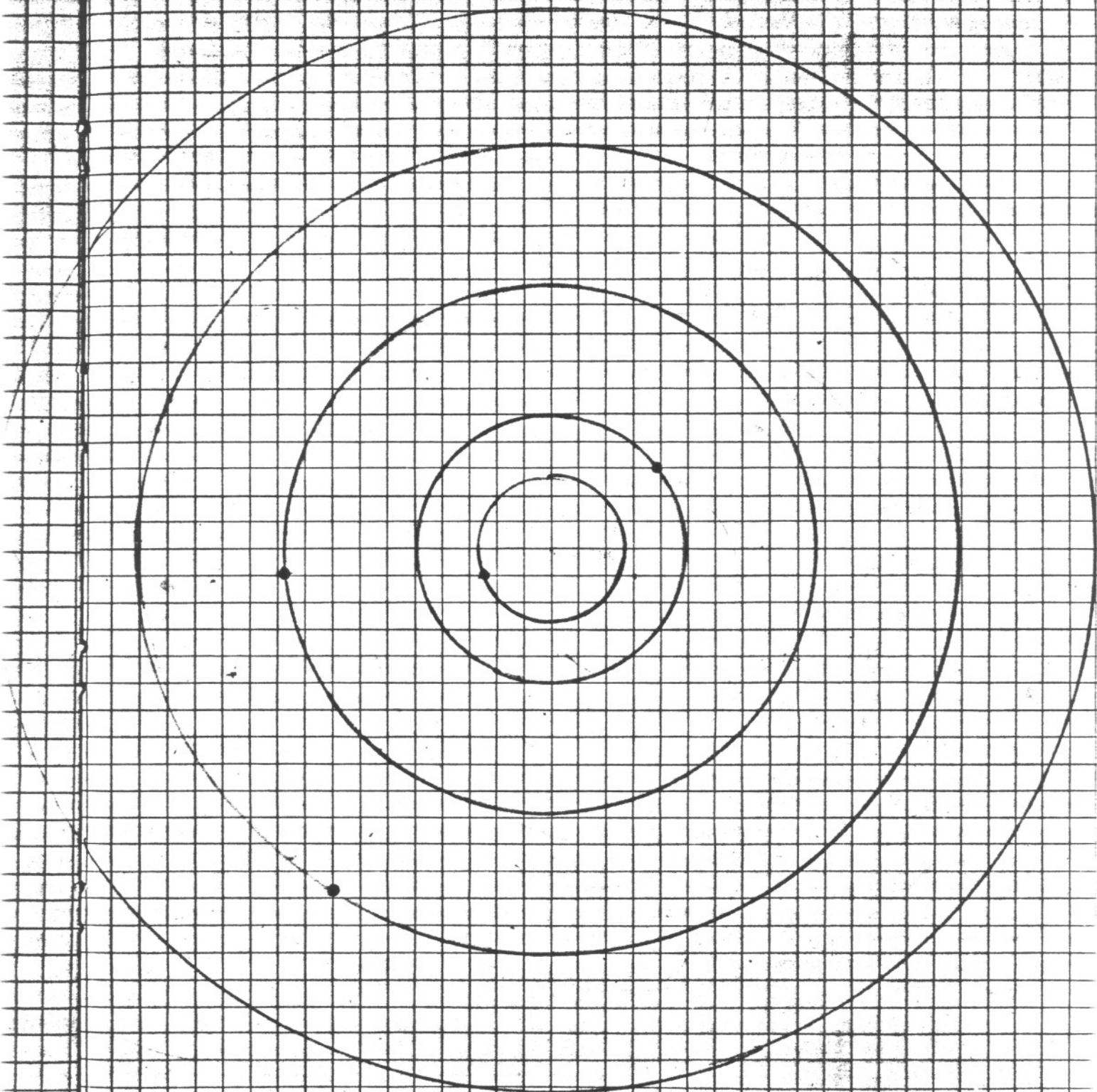


Jan 1 1970 40587 Planets 1-4



Jan 1 1970

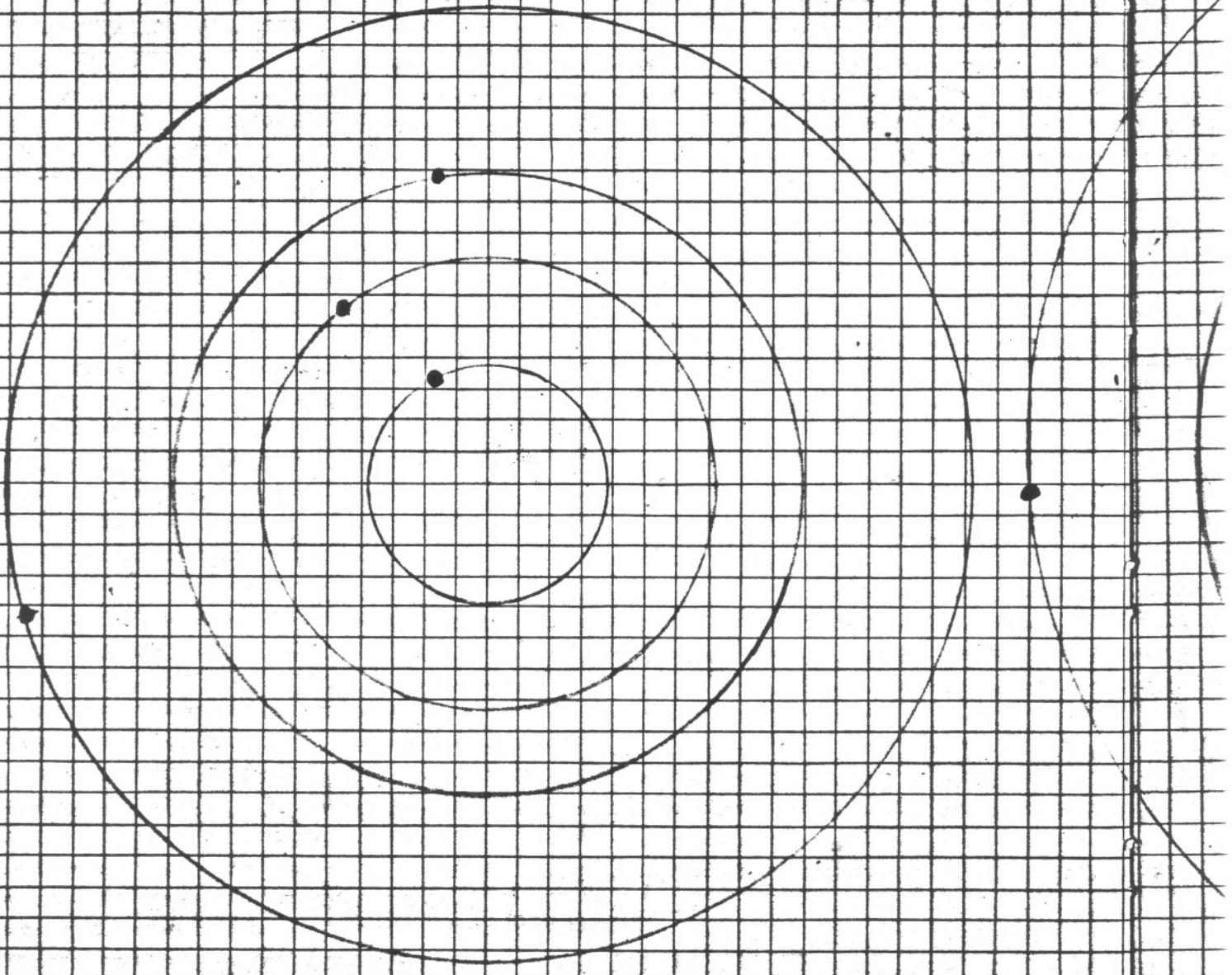
Planets J-9



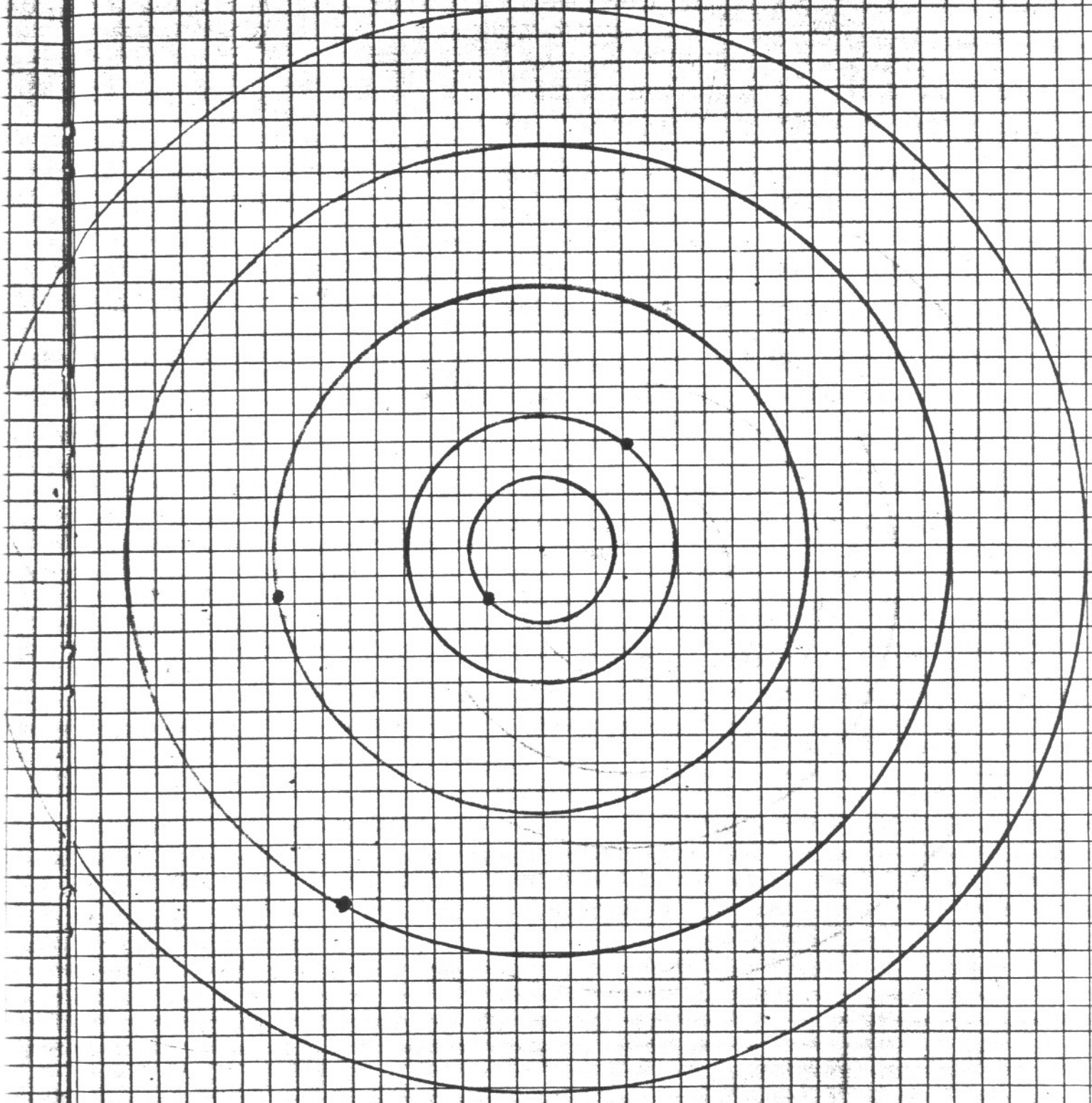
Jan 1971

~~40582~~
40952

Planets 1-4



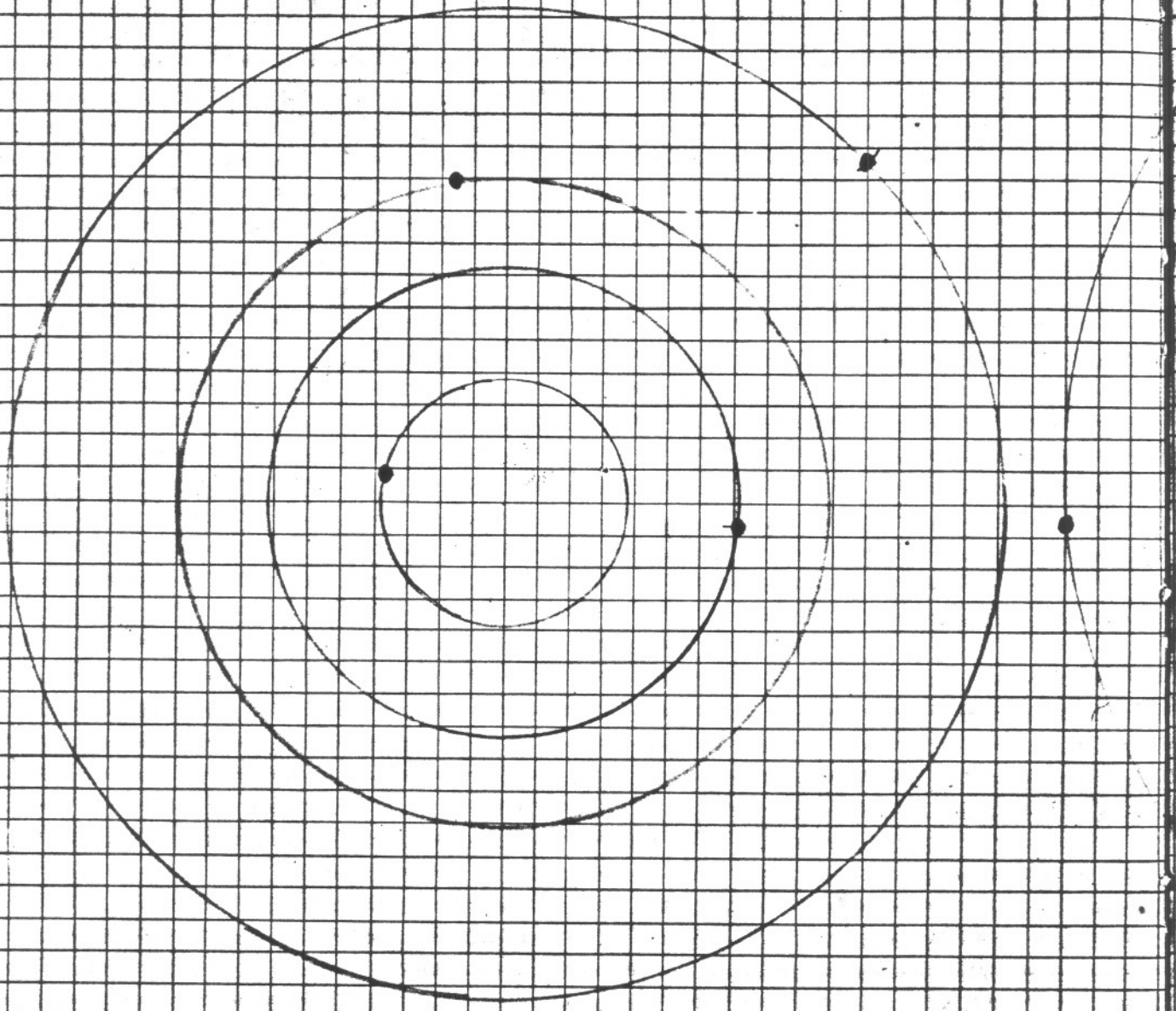
Jan 1 1971 Planets 5-8



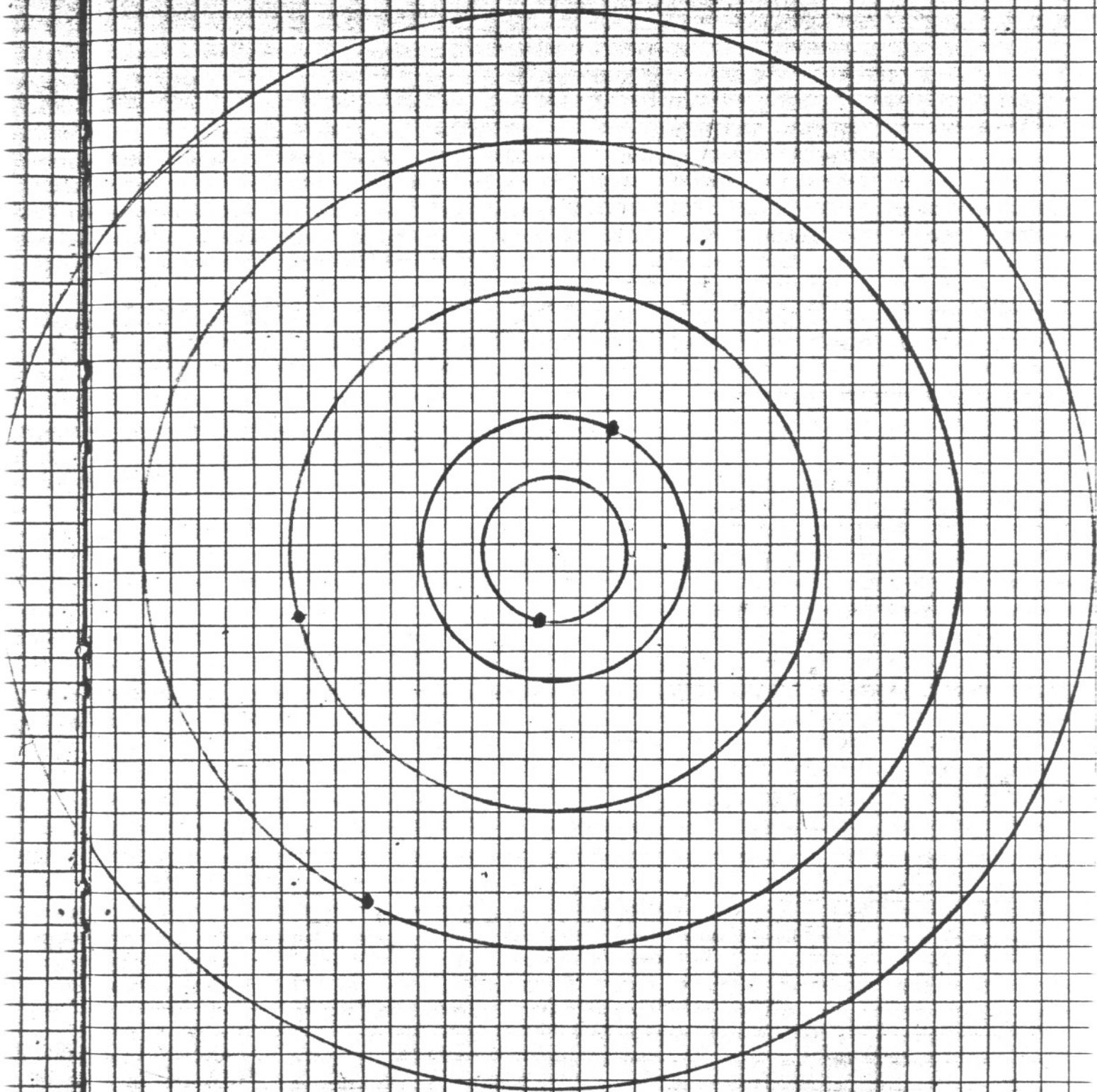
Jan 1 1972

4137

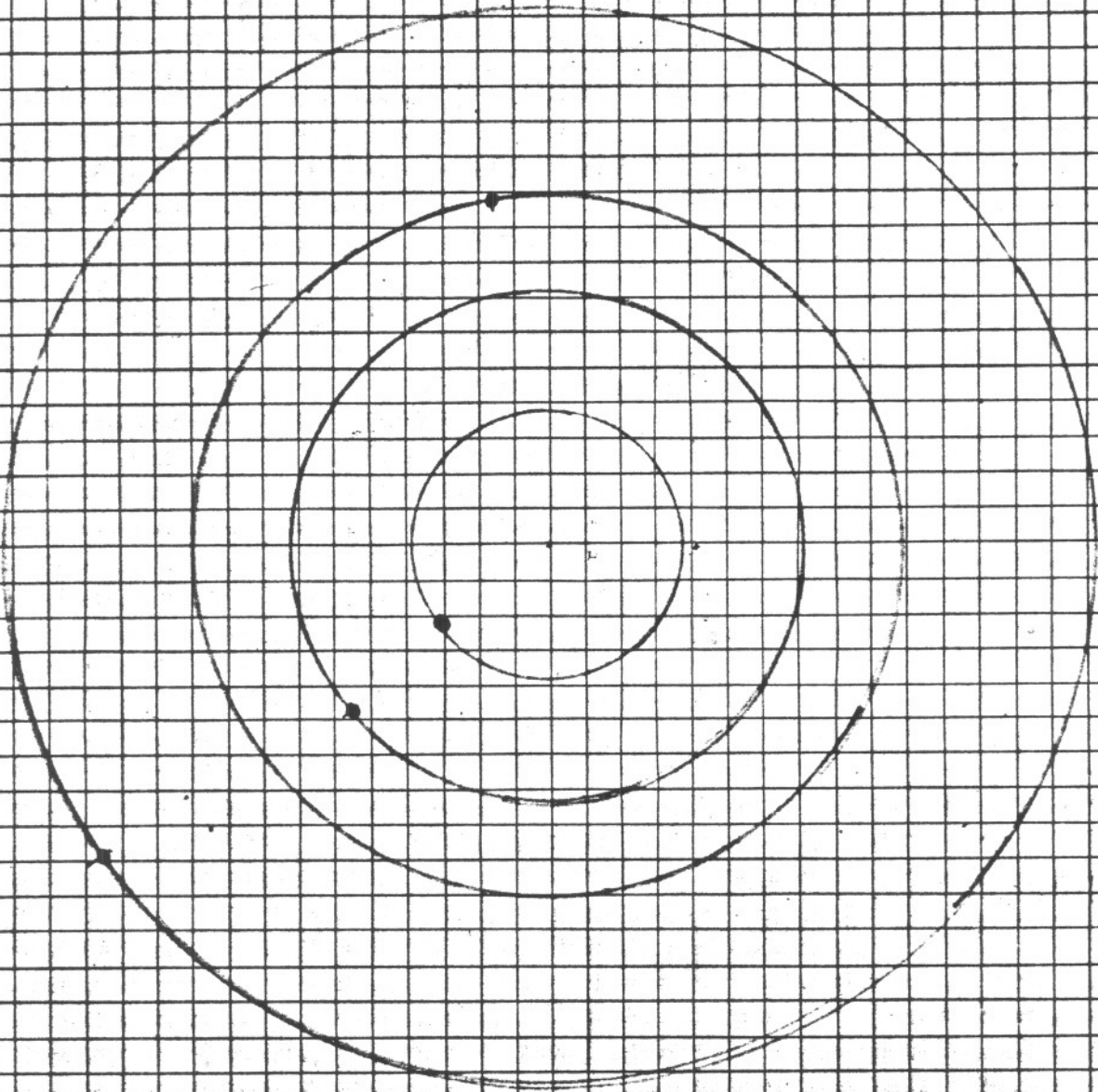
planets 1-4



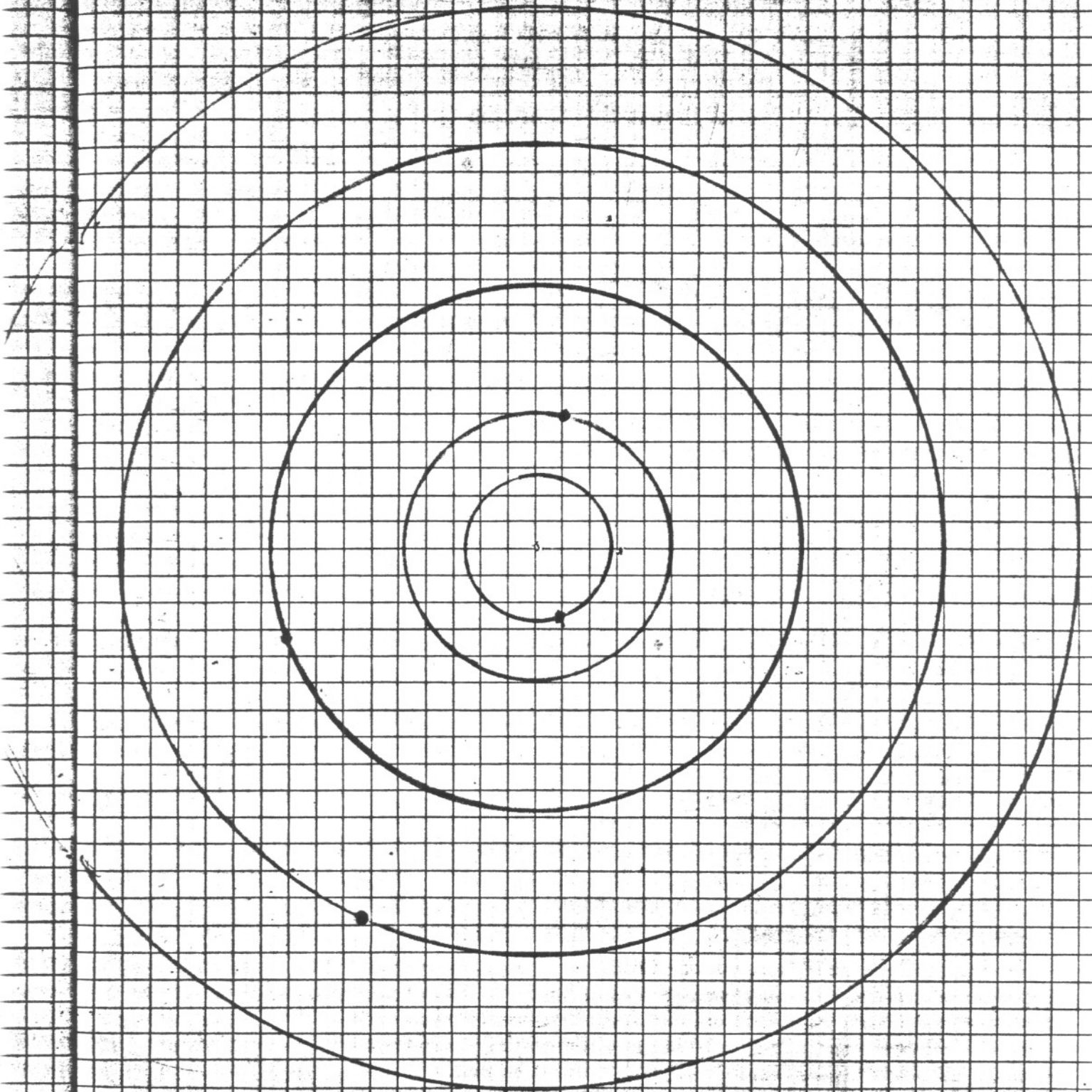
Jan 1 1972 planets



Jan 1975 51523 Planets 1-4



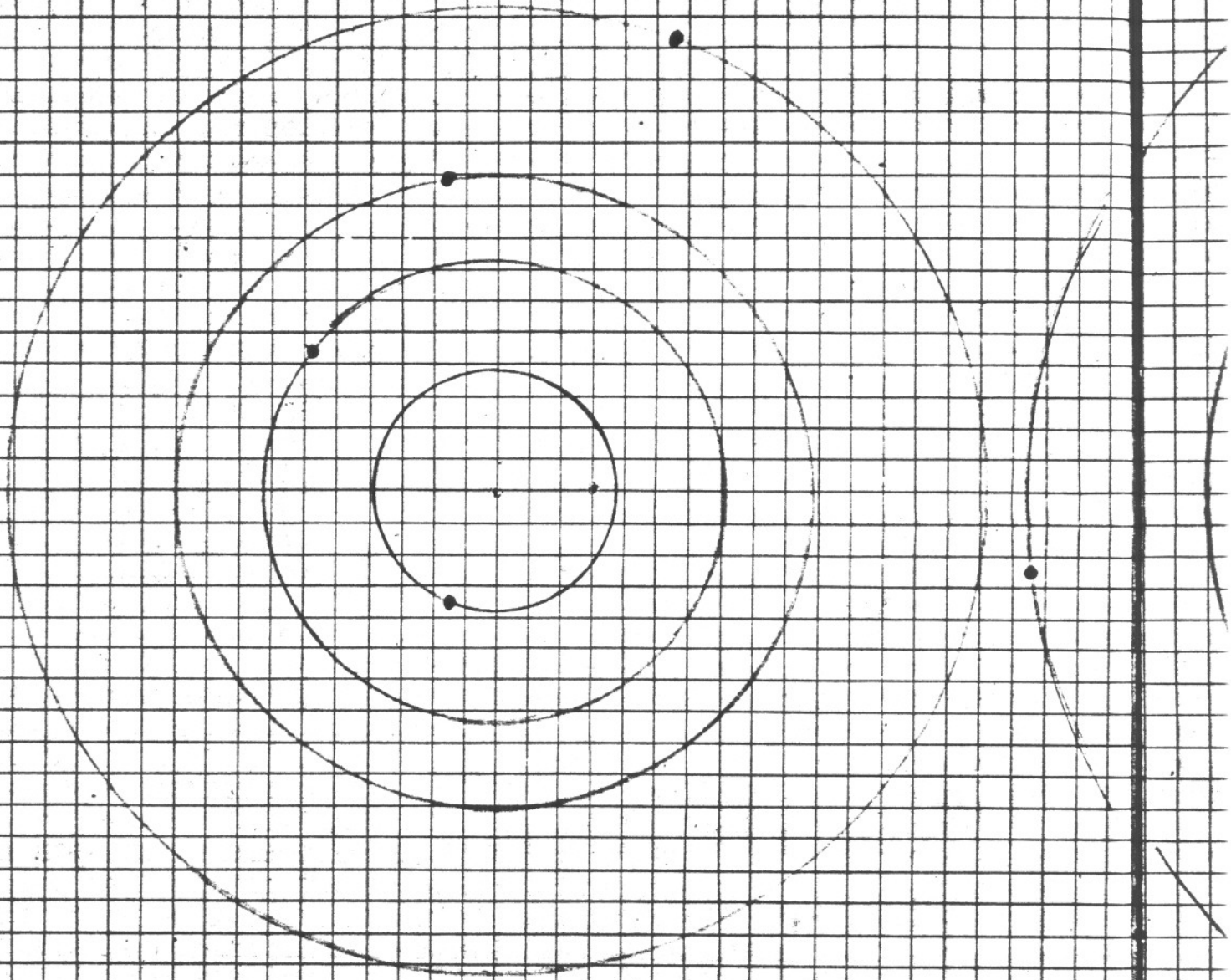
Jan 1 1973 - Planet 5-9



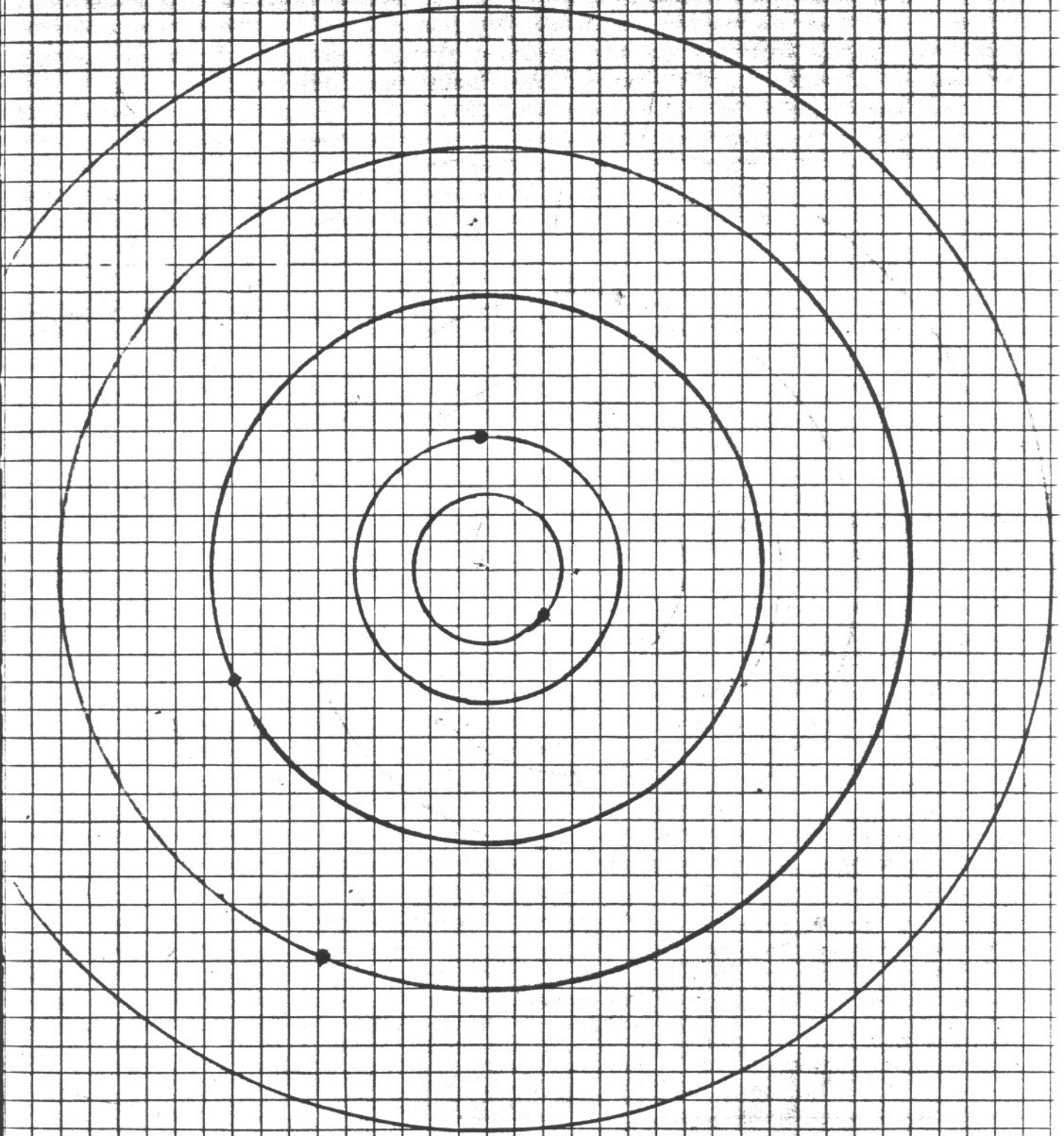
Jan 1 1974

42048

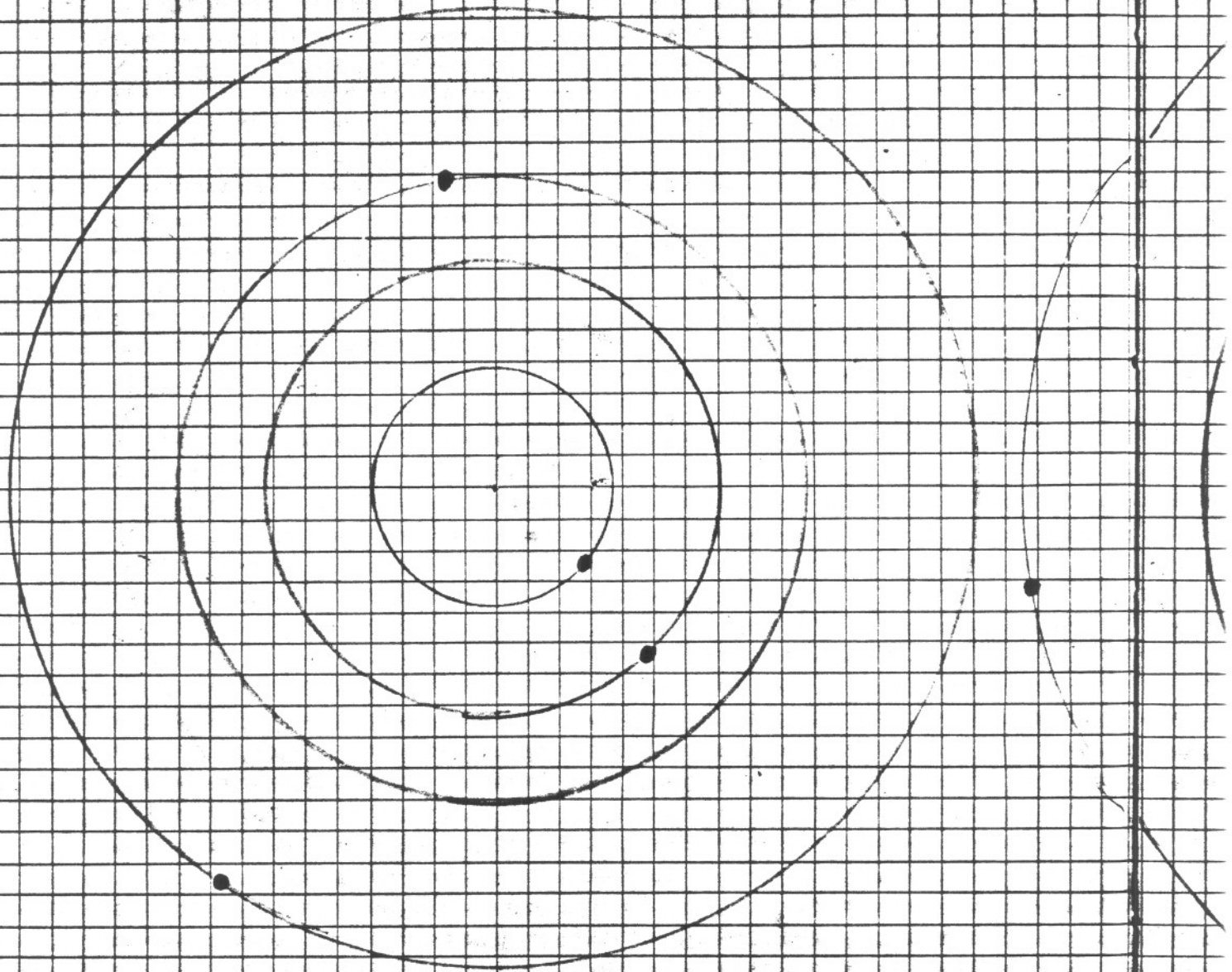
Planets 1-4



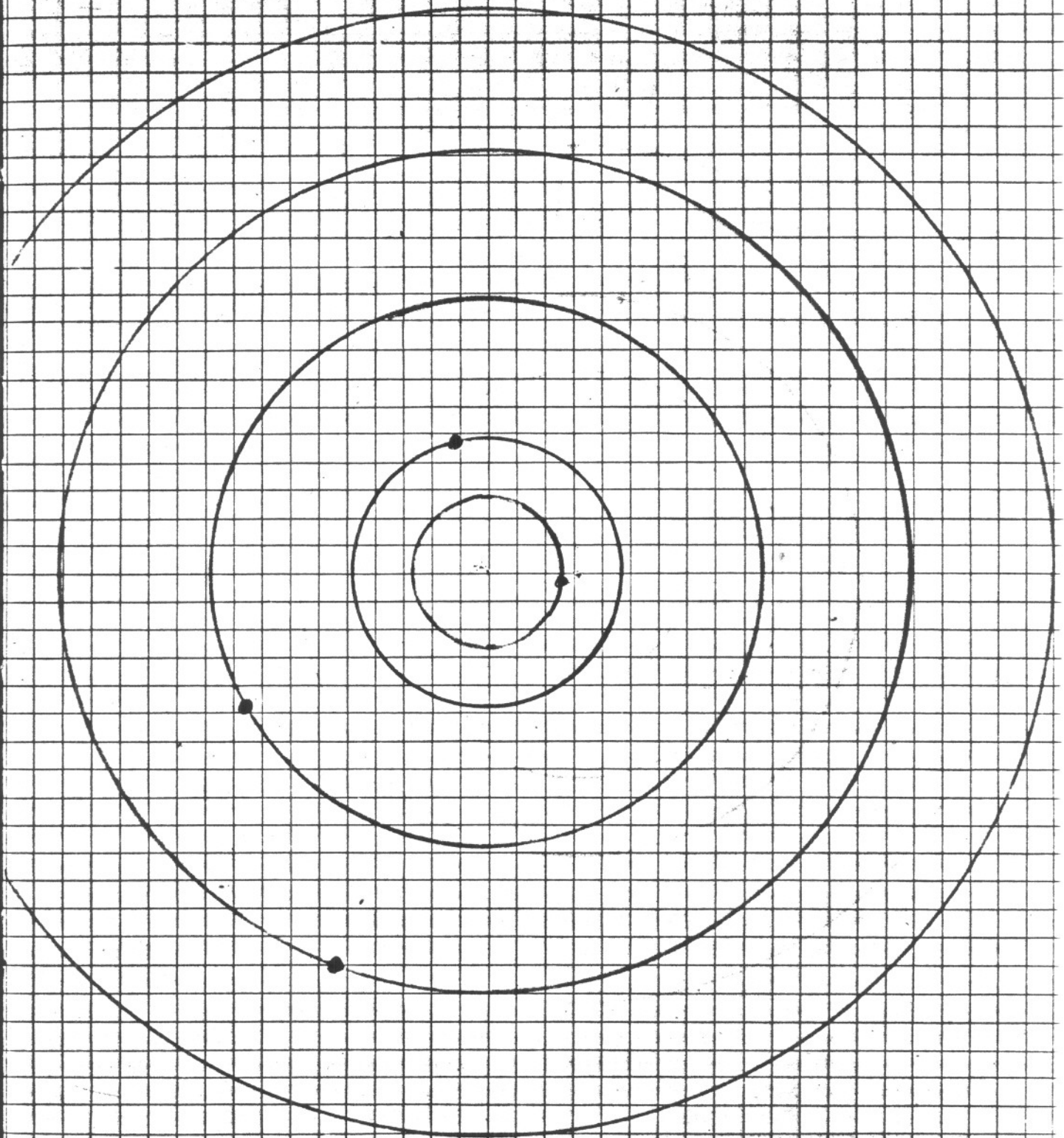
Jan 1 1974 Planet C-3



Jan 1975 42423. 1-4



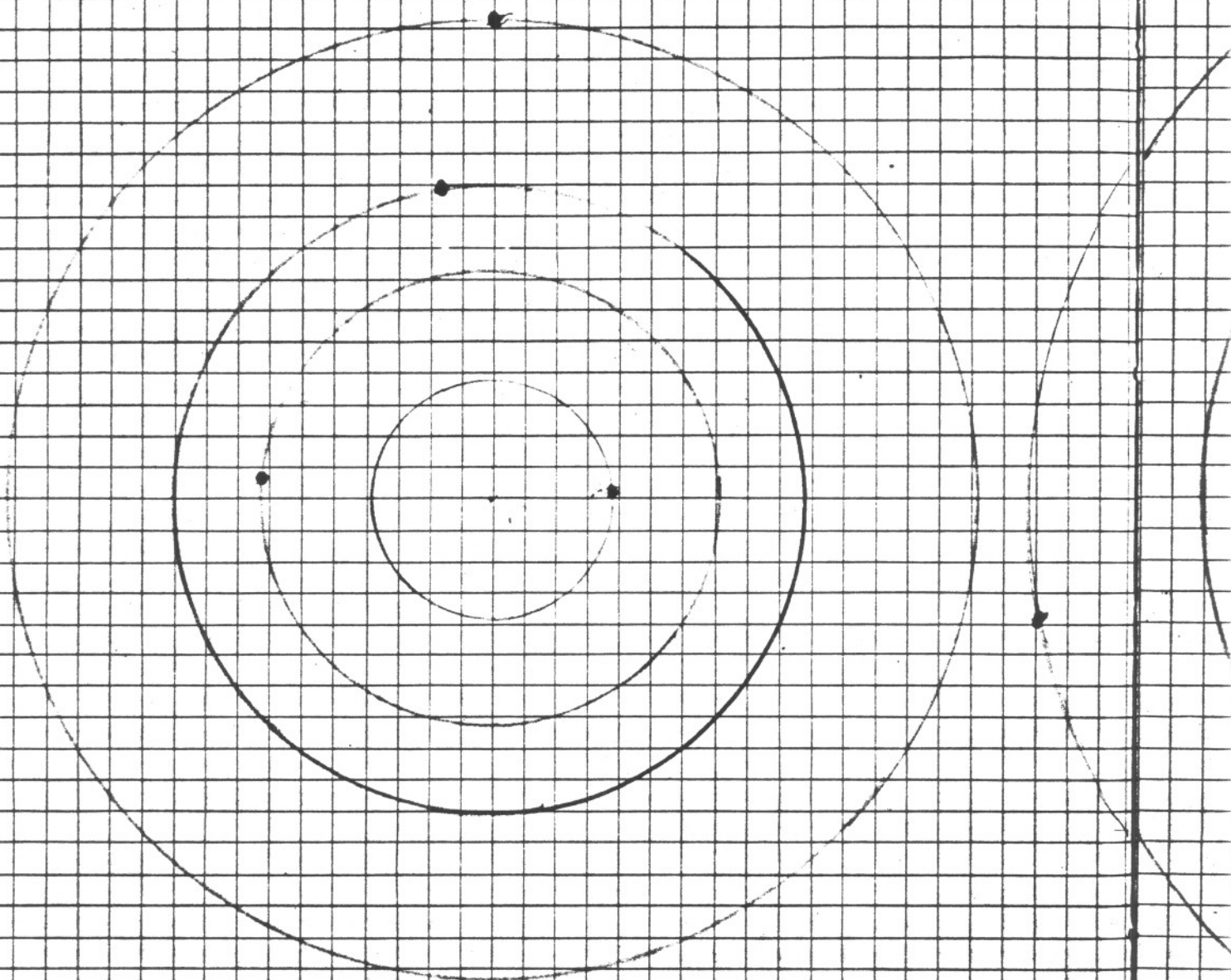
Jan 1 1925 planets 5-9



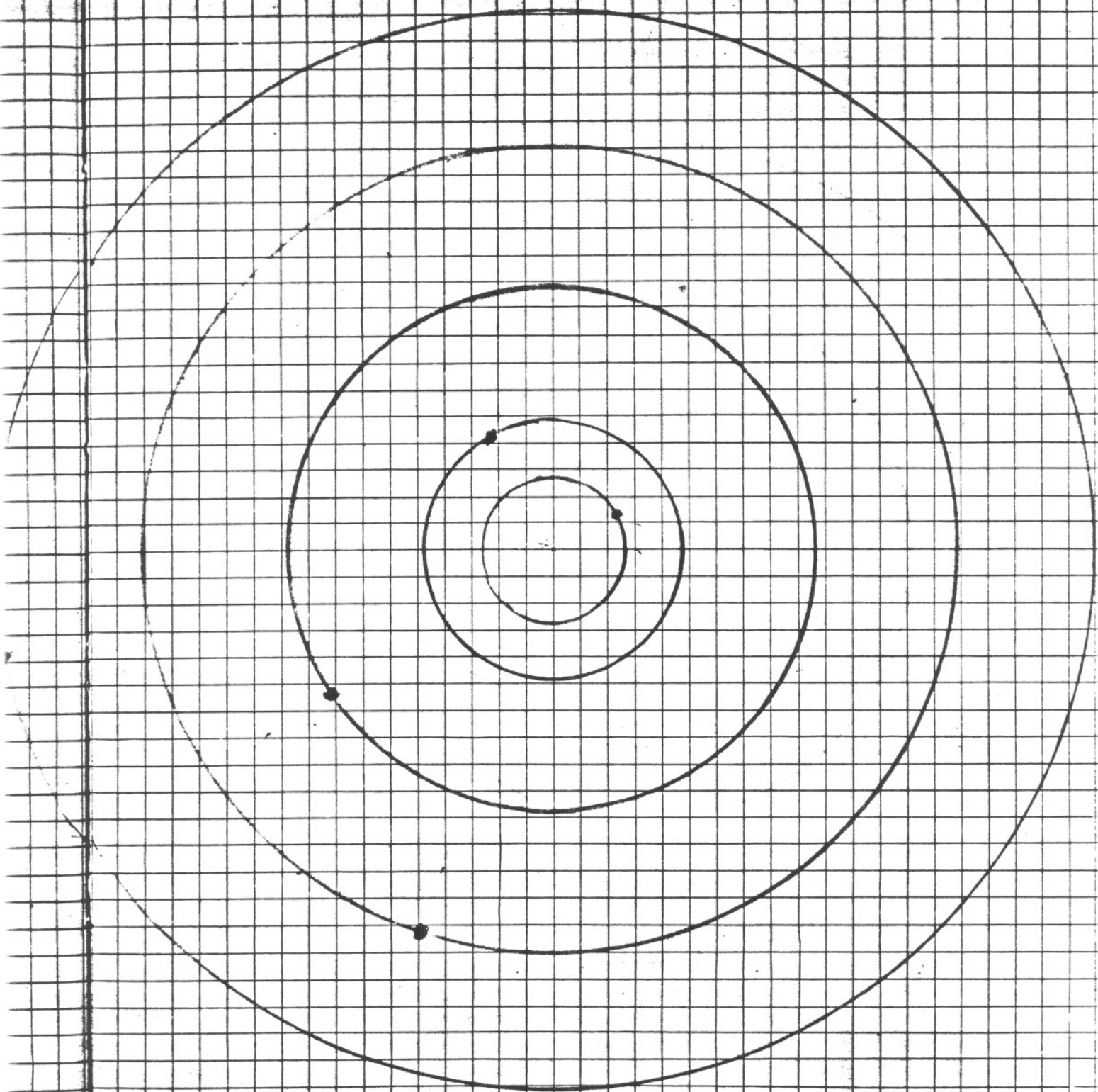
Jan 1 1976

42378

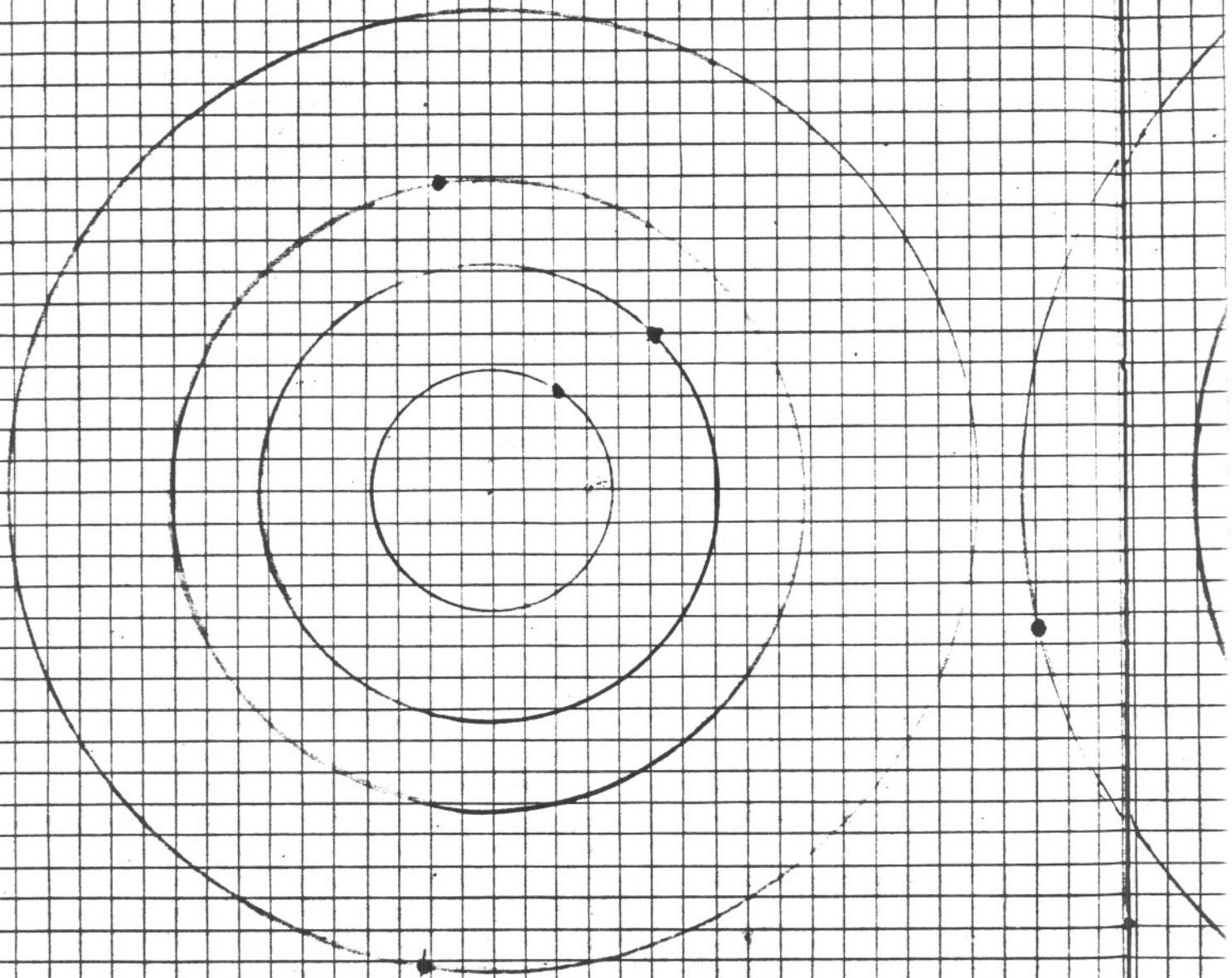
Planets 1-4



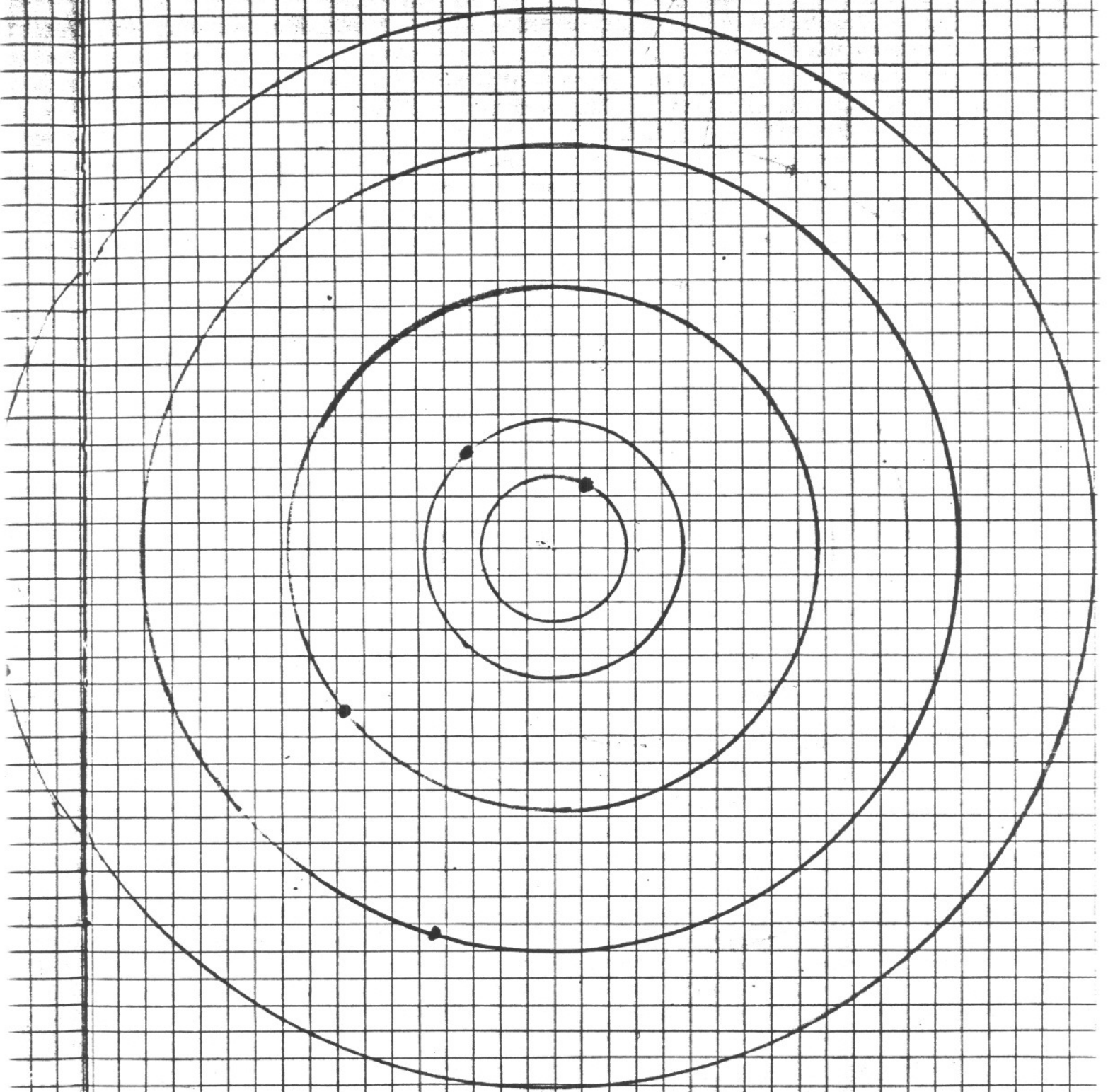
June 1 1976 planets 5-9



Jan 1 1977 43144 Planets 1-4



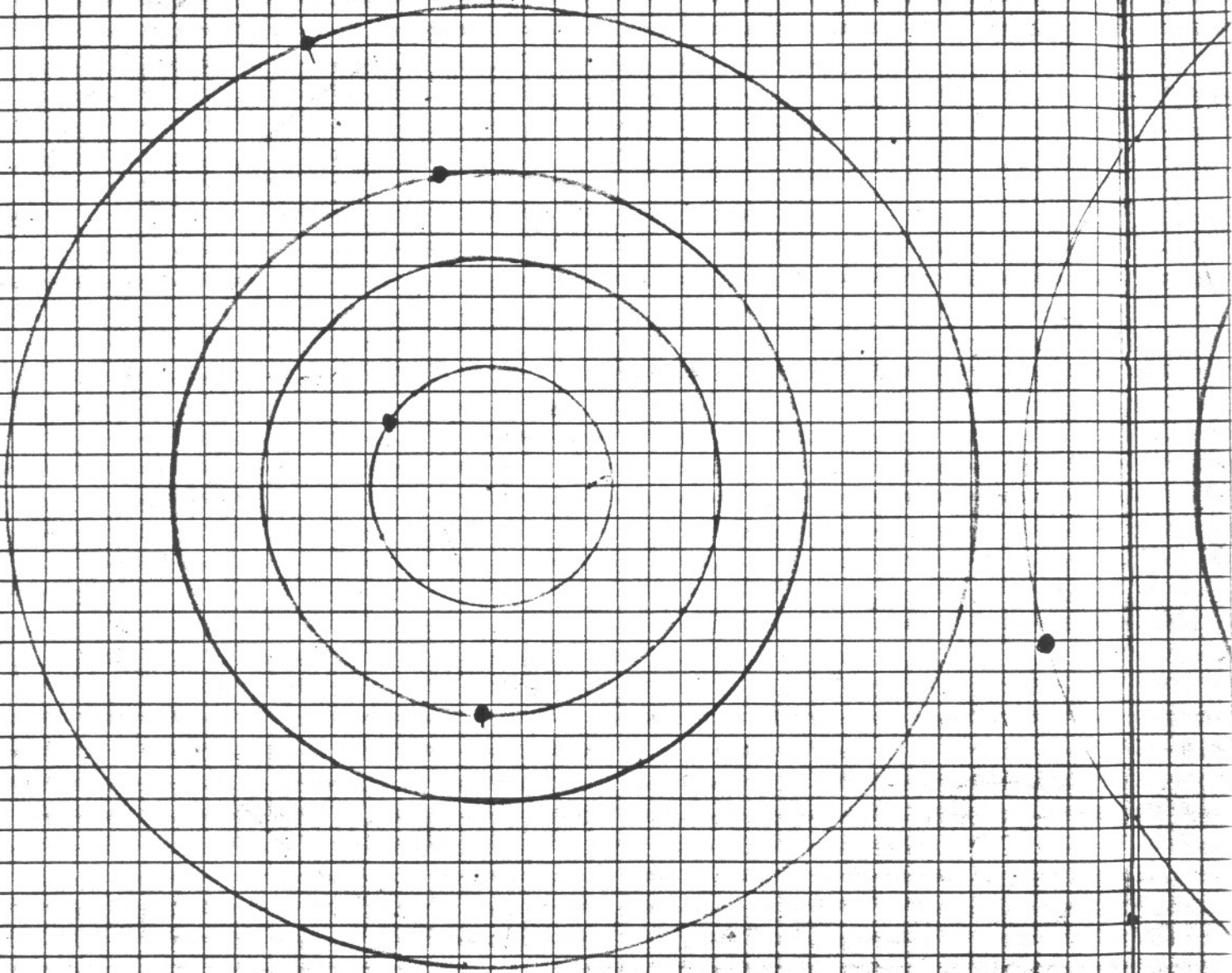
Jan 4 1977 Planets 5-9



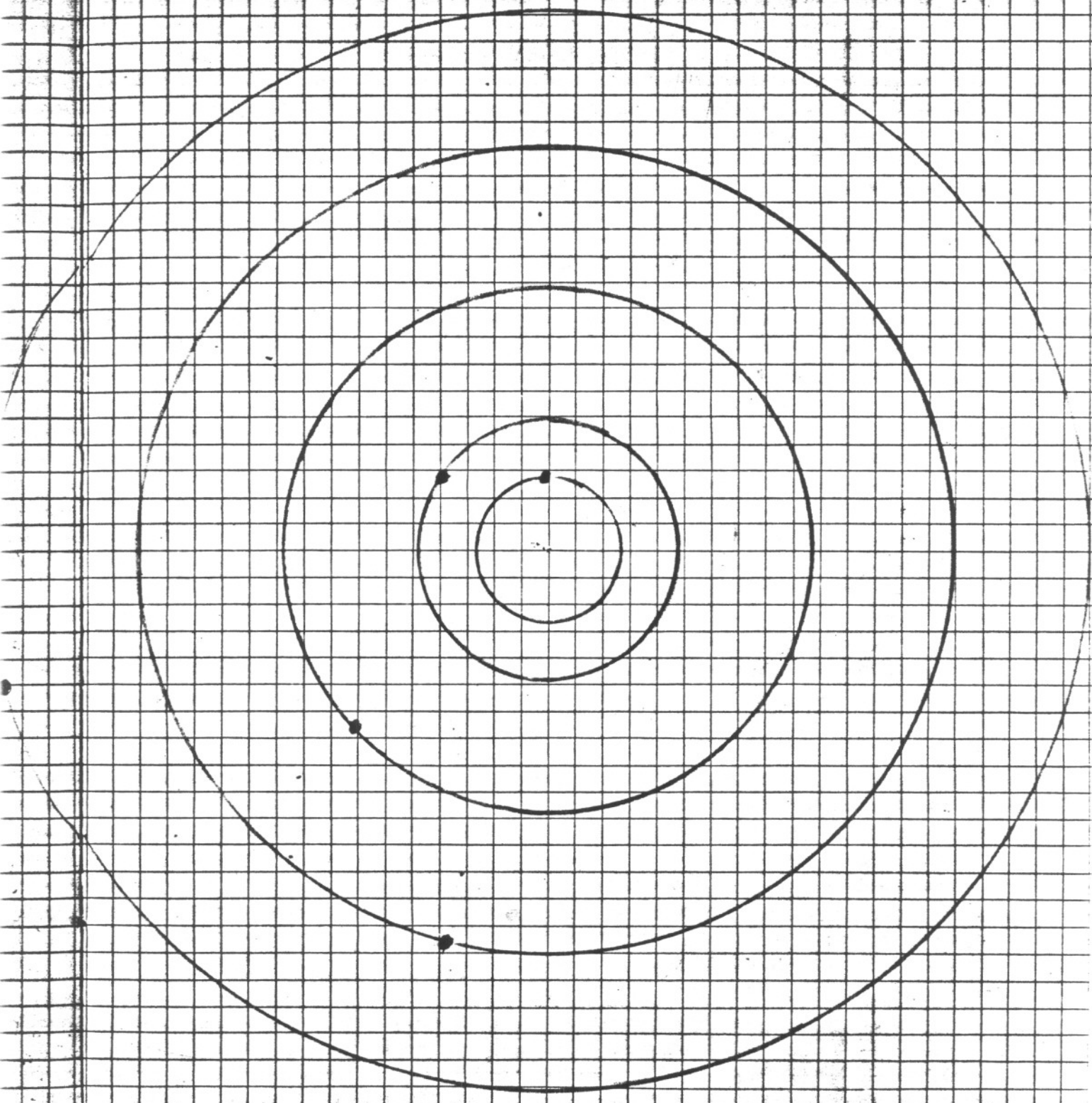
Jan 1 1978

43-224
43-29

Planets 1-4

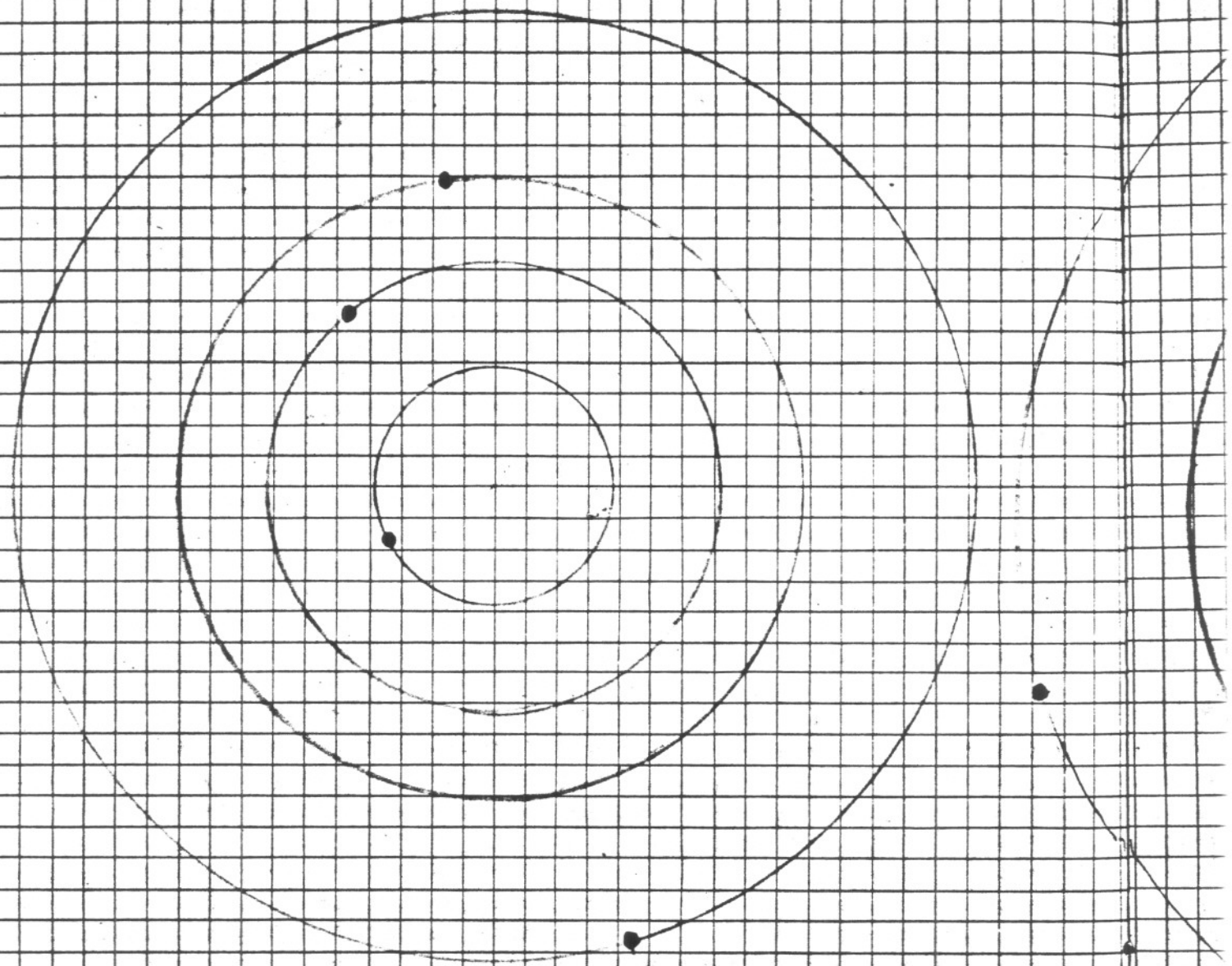


Jan 1 1978 Planets 5-9



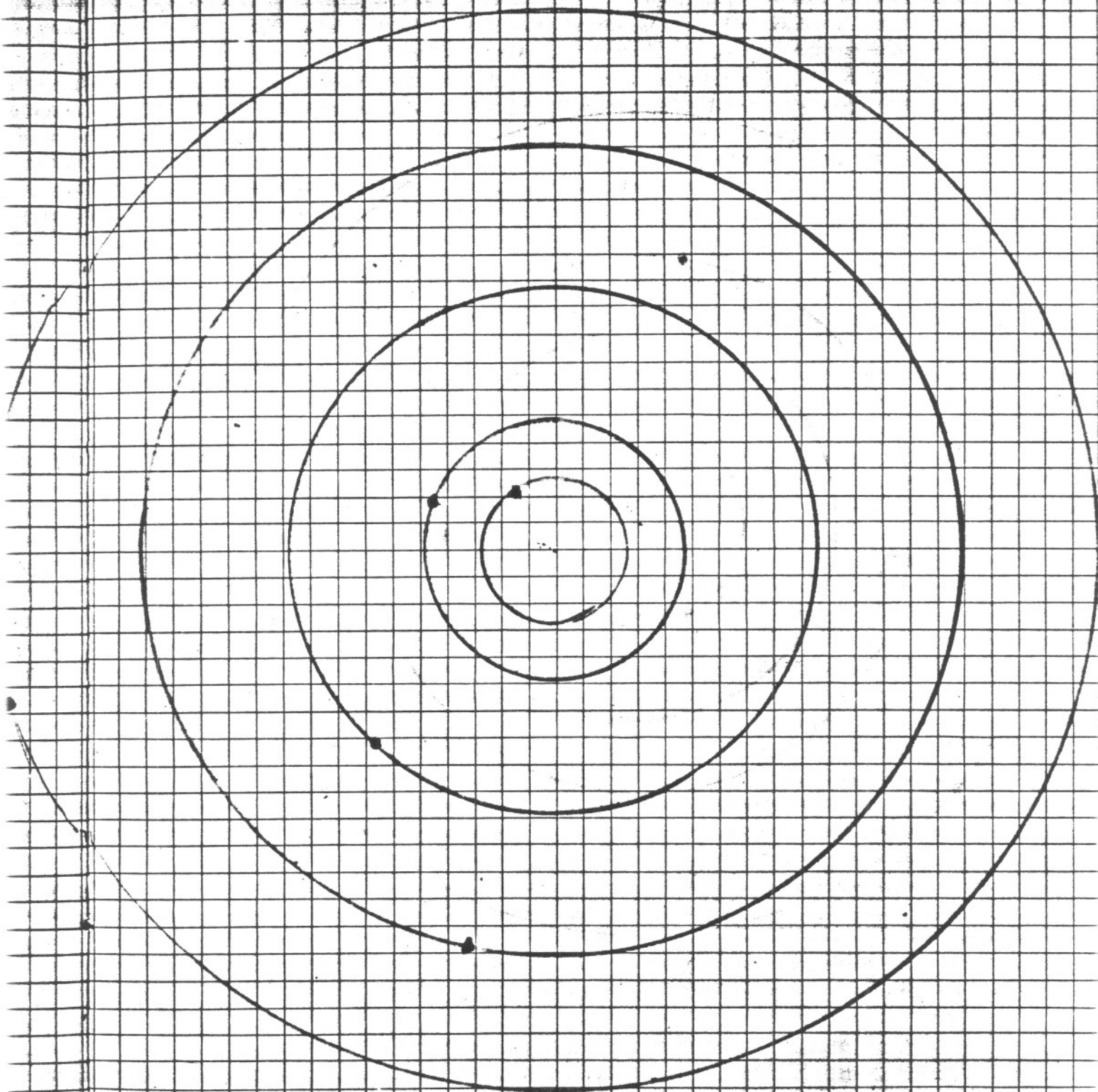
June 1 1777 43874 Planets 1-4

8



Jan 1 1979

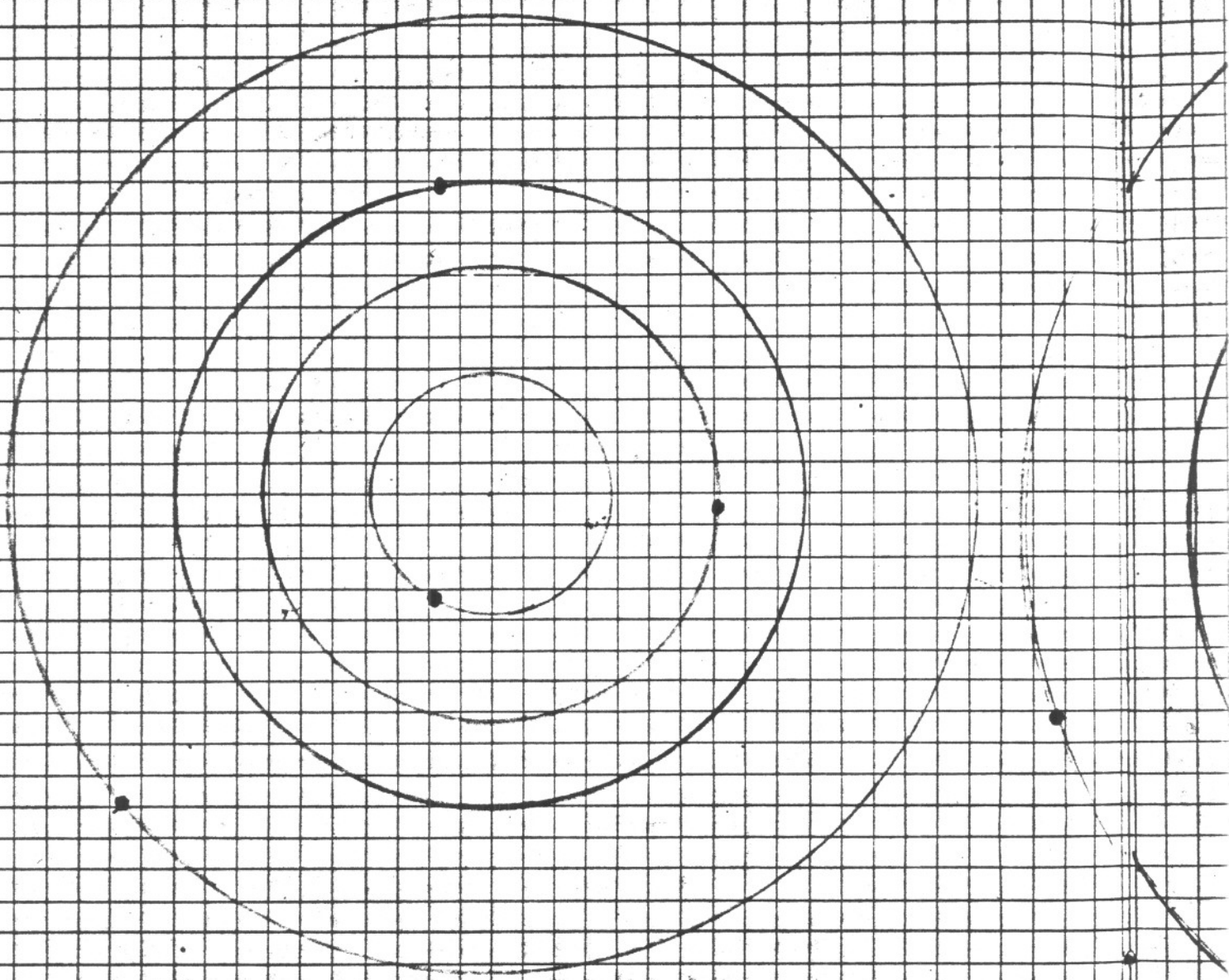
Planets 5-9



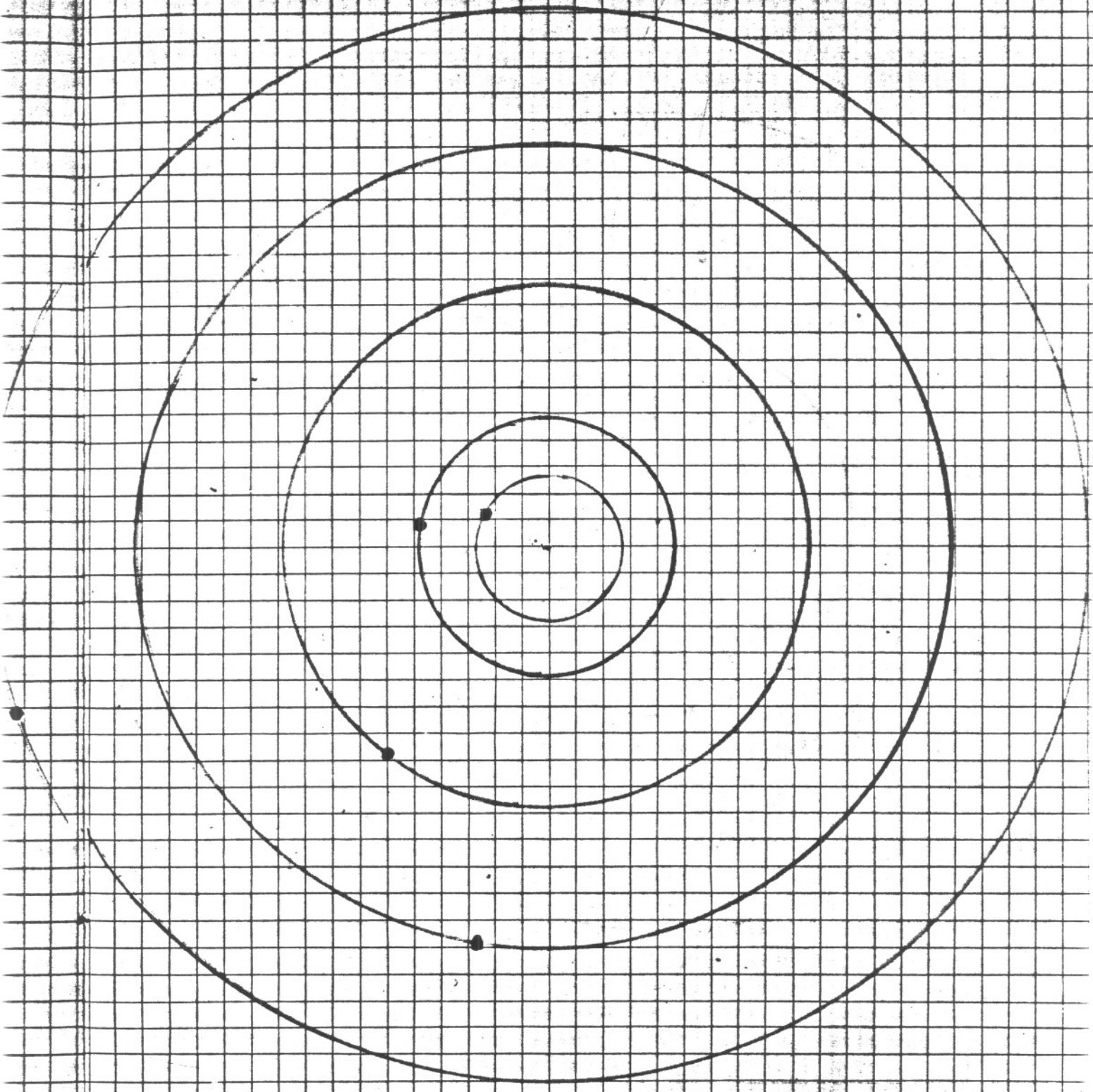
Jan 1 1980

44239

Planets 1-4



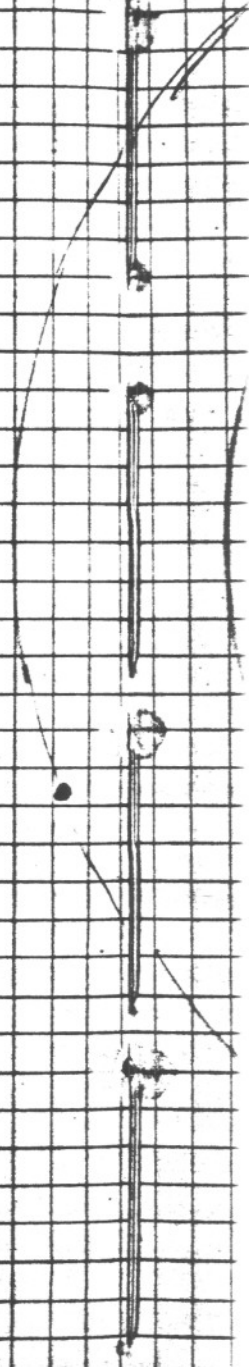
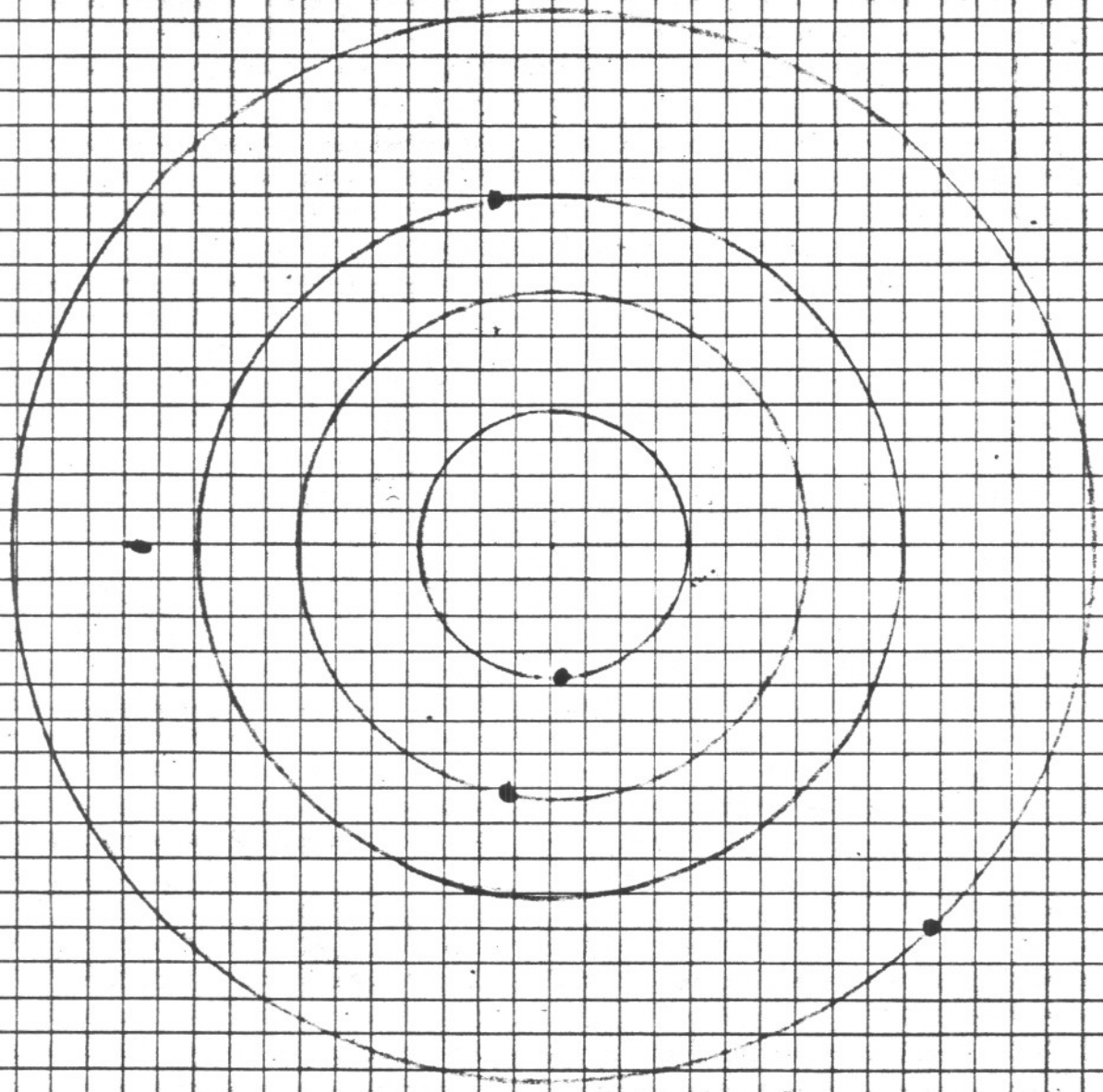
Jan 1 1980 Planet 5-9



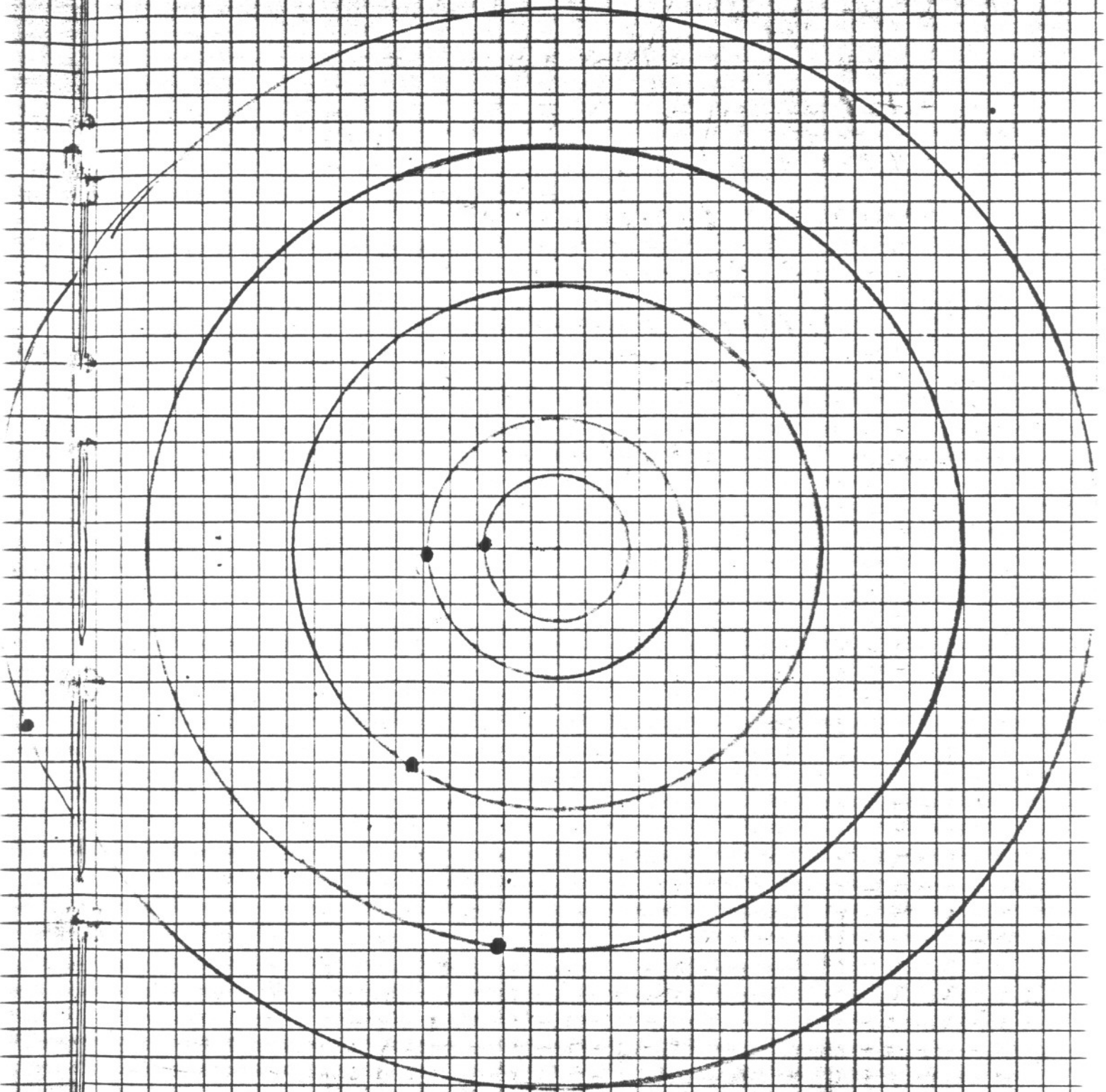
June 1 1981

44605

Planets 1-4



Jan 1 1981 planets 5-9



Total number of types $P_1 - P_2 - P_3 - \dots - P_n$ where
 $P_i \neq P_{i+1}$ is $9 \times 8^{n-1}$

\therefore total number is

$$N_2(P_1 - P_2 - P_3) + N_4(P_1 - P_2 - P_3 - P_4) + \dots + N_n$$

$$= 9 \times 8^2 + 9 \times 8^3 + 9 \times 8^4 + \dots + 9 \times 8^{n-1}$$

$$= 9(8^2 + 8^3 + 8^4 + \dots + 8^{n-1})$$

$$= 9 \times 8^2(1 + 8 + 8^2 + \dots + 8^{n-3})$$

$$= 9 \times 8^2 \left[\frac{1 - 8^{n-2}}{1 - 8} \right] = \frac{576}{7} \times (8^{n-2} - 1)$$

$$\text{For } n=5 \quad N = \frac{576}{7} \times (8^3 - 1) = \frac{576}{7} \times 511 = 576 \times 73 = 42048$$

Possible Trajectory Types

$$P_1 - P_2 - P_3 - \dots - P_N$$

$$P_i = \text{each} = 3$$

N	Type	N _i	Type	N	Type	
2	3-2-1	*	3-2-3-5	*	4	2-5-3-9
	3-2-2	*	3-2-3-6	*		2-5-4-1
	3-2-3	*	3-2-3-7	*		2-5-4-2
	3-2-4	*	3-2-1-2	*		2-5-4-3
	3-2-5	*	3-4-3-1	*		2-5-4-4
	3-2-6		3-4-3-2	*		2-5-4-5
	3-2-7		3-4-3-3	*		2-5-4-6
	3-2-8		3-4-3-4	*		2-5-4-7
	3-2-9		3-4-3-5	*		2-5-4-8
	3-4-1	*	3-4-3-6	*		2-5-4-9
	3-4-2	*	3-4-3-7	*		2-5-6-1
	3-4-3	*	3-4-3-8	*		2-5-6-2
	3-4-4	*	3-4-3-9	*		2-5-6-3
	3-4-5	*	3-4-2-1	*		2-5-6-4
	3-4-6	*	3-4-2-2	*		2-5-6-5
	3-4-7	*	3-4-2-3	*		2-5-6-6
	3-4-8	*	3-4-2-4	*		2-5-6-7
	3-4-9	*	3-4-2-5	*		2-5-6-8
	3-5-1	*	3-4-2-6	*		2-5-6-9
	3-5-2	*	3-4-2-7	*		2-5-7-1
	3-5-3	*	3-4-2-8	*		2-5-7-2
	3-5-4	*	3-4-2-9	*		2-5-7-3
	3-5-5	*	3-5-1-2	*		2-5-7-4
	3-5-6	*	3-5-1-3	*		2-5-7-5
	3-5-7	*	3-5-1-4	*		2-5-7-6
	3-5-8	*	3-5-1-5	*		2-5-7-7
	3-5-9	*	3-5-1-6	*		2-5-7-8
	2-6-1	*	3-5-1-7	*		2-5-7-9
	2-6-2	*	3-5-1-8	*		2-5-8-1
	2-6-3	*	3-5-1-9	*		2-5-8-2
	2-6-4	*	3-5-2-1	*		2-5-8-3
	2-6-5	*	3-5-2-2	*		2-5-8-4
	2-6-6	*	3-5-2-3	*		2-5-8-5
	2-6-7	*	3-5-2-4	*		2-5-8-6
	2-6-8	*	3-5-2-5	*		2-5-8-7
	2-6-9	*	3-5-2-6	*		2-5-8-8
			3-5-2-7	*		2-5-8-9
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			3-5-3-1	*		2-2-1-2-5
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			2-5-3-12	*		2-2-2-2-9

N Type

N Type

N Type

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3	-	5	-	6	-	6	-	5	*
3	-	5	-	6	-	6	-	6	*
3	-	5	-	6	-	6	-	7	*
3	-	5	-	6	-	6	-	8	*
3	-	5	-	6	-	6	-	9	*
3	-	5	-	6	-	7	-	1	*
3	-	5	-	6	-	7	-	2	*
3	-	5	-	6	-	7	-	3	*
3	-	5	-	6	-	7	-	4	*
3	-	5	-	6	-	7	-	5	*
3	-	5	-	6	-	7	-	6	*
3	-	5	-	6	-	7	-	7	*
3	-	5	-	6	-	7	-	8	*
3	-	5	-	6	-	7	-	9	*
3	-	5	-	6	-	8	-	1	*
3	-	5	-	6	-	8	-	2	*
3	-	5	-	6	-	8	-	3	*
3	-	5	-	6	-	8	-	4	*
3	-	5	-	6	-	8	-	5	*
3	-	5	-	6	-	8	-	6	*
3	-	5	-	6	-	8	-	7	*
3	-	5	-	6	-	8	-	8	*
3	-	5	-	6	-	8	-	9	*
3	-	5	-	6	-	9	-	1	*
3	-	5	-	6	-	9	-	2	*

Handwritten notes and symbols on the right side of the grid, including arrows and various markings.

N	Type
5	3-5-7-4-3
3	5-7-4-5
3	5-7-4-6
3	5-7-4-7
2	5-7-4-8
3	5-7-4-9
3	5-7-5-1
3	5-7-5-2
2	5-7-5-3
2	5-7-5-4
3	5-7-5-6
2	5-7-5-7
3	5-7-5-8
3	5-7-5-9
3	5-7-6-1
3	5-7-6-2
3	5-7-6-3
3	5-7-6-4
3	5-7-6-5
3	5-7-6-8
3	5-7-6-9
2	5-7-8-1
2	5-7-8-2
3	5-7-8-3
3	5-7-8-4
3	5-7-8-5
2	5-7-8-6
2	5-7-8-7
3	5-7-8-9
3	5-7-9-1
3	5-7-9-2
3	5-7-9-3
3	5-7-9-4
3	5-7-9-5
3	5-7-9-6
3	5-7-9-7
3	5-7-9-8
3	5-7-9-9
3	5-8-1-2
3	5-8-1-3
3	5-8-1-4
3	5-8-1-5
3	5-8-1-6
3	5-8-1-7
3	5-8-1-8
3	5-8-1-9
3	5-8-2-1
3	5-8-2-3
3	5-8-2-4

N	Type
5	3-5-8-2-5
3	5-8-2-6
3	5-8-2-7
3	5-8-2-8
3	5-8-2-9
3	5-8-3-1
3	5-8-3-2
3	5-8-3-4
3	5-8-3-5
3	5-8-3-6
3	5-8-3-7
3	5-8-3-8
3	5-8-3-9
3	5-8-4-1
3	5-8-4-2
3	5-8-4-3
3	5-8-4-5
3	5-8-4-6
3	5-8-4-7
3	5-8-4-8
3	5-8-4-9
3	5-8-5-1
3	5-8-5-2
3	5-8-5-3
3	5-8-5-4
3	5-8-5-6
3	5-8-5-7
3	5-8-5-8
3	5-8-5-9
3	5-8-6-1
3	5-8-6-2
3	5-8-6-3
3	5-8-6-4
3	5-8-6-5
3	5-8-6-7
3	5-8-6-8
3	5-8-6-9
3	5-8-7-1
3	5-8-7-2
3	5-8-7-3
3	5-8-7-4
3	5-8-7-5
3	5-8-7-6
3	5-8-7-8
3	5-8-7-9
3	5-8-9-1
3	5-8-9-2
3	5-8-9-3
3	5-8-9-4

Handwritten notes and symbols on the right side of the grid, including arrows and scribbles.

April 20 1962

Full scale numerical study begins -
 general reconam manual program
 completed new job number is CF09

one-way: Earth - mercury

BLI(M) = 38761 TI3(M) = 4.
 TIM(M) = 50. TI4(M) = 4.
 NL(M) = 90 NNM(M) = 50

completed ✓

April 26

Earth - Jupiter

BLI(M) = 38761. TI3(M) = 20.
 TIM(M) = 400. TI4(M) = 20.
 NL(M) = 20 NNM(M) = 100

NM = ~~5~~

BLI(M) =	38981.	38771.	38771.	39411.	38771.
TI3(M) =	10.	4.	4.	4.	4.
TI(M) =	400. ^{10.}	60.	60.	4.	2.
TIO(M) =	10.	6.	4.	10.	10.
NNM(M) =	100	90	100	100	90
TI4(M) =	10.	4.	2.	10.	4.
TIM(M) =	400.	60.	60.	70.	60.
NPM(M) =	3	4	3	3	3
NA(M) =					
NL(M) =	5	50	50	50	50
ALTINJ(M) =	200.	200	200	200.	200

NP(IP, M) =	{	3 - 5 - 7	NA(IP, M) =	{	0 0 100
		3 - 2 - 4 - 3			0 0 50 50
		3 - 2 - 1			0 0 70
		3 - 4 - 5			0 0 100
		3 - 2 - 5			0 0 100