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Patterns Test

Name: _____

1. Complete the following pattern up to the sixth term.

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2. Draw and label a t-chart for the pattern above.

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3. Find the rule for the following t-charts. Fill in blanks.

Input	Output	Input	Output	Input	Output
1	4	1	3	1	3
2	8	2	5	3	9
3	12	3	7	7	21
4	—	4	—	10	—
5	—	5	—	12	—
6	—	6	—	15	—

1/2

Rule: _____

Rule: _____

Rule: _____

4. Construct and label a t-chart using the following ordered pairs: (0,2), (1,3), (2,4), (3,5), (4,6), (5,7)

1/4

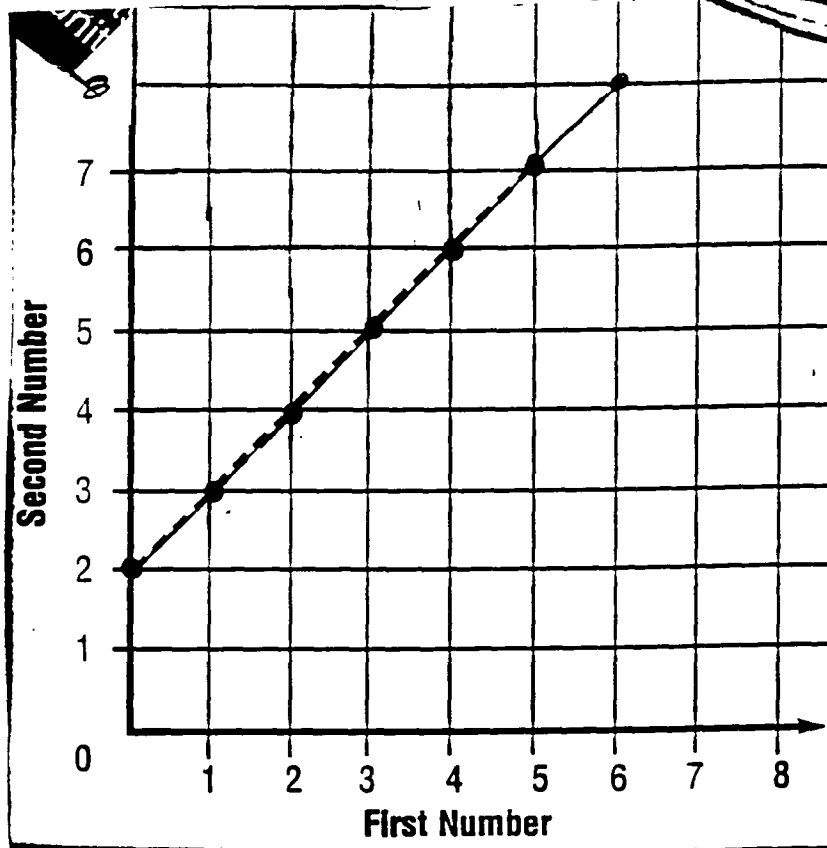
5. Write a rule for question 4.

1/2

6. Draw and label a graph for question 4.

1/5

7. Write the ordered pairs that are plotted on this graph.



Ordered Pairs

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

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8. Put the ordered pairs from question 7 into a t-chart and state the rule. LABEL T-Chart.

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9. In each t-chart, circle the pair that does not follow the rule. Yes, this means you have to find it first. State the rule below.

a.)

A	B
9	7
13	11
6	4
3	0
5	3

Rule:

b.)

A	B
1	7
9	23
3	11
4	13
12	28

Rule:

14

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10. Find the rule for each set. The rule relates the first two columns to the third, or the first three columns to the fourth.

a.) 8 3 7
7 6 3
4 2 4

Rule:

b.) 3 4 12
6 1 6
0 5 0

Rule:

c.) 1 5 12
2 2 8
5 7 24

Rule:

d.) 18 6 3
30 5 6
25 5 5

Rule:

e.) 2 6 12
0 7 7
2 3 6

Rule:

f.) 2 3 2 12
5 1 7 35
8 1 1 8

Rule:

1/6

11. Create a t-chart with 5 terms using the rule $(T \times 3) + 2$. Label your T-chart.

1/6

12. This t-chart shows the amount of books that Josh reads per day. Use the rule to find out how many books he can read in 30 days.

# of days	# of books
1	4
2	6
3	8
4	10
5	12

1/2

13. If on the 20th day, Josh had 50 books, how many of them would he have not read? Explain.

1/3

14. Draw a graph that shows the relationship with the number of books Josh read in ten days. Label your graph.

1/6

1/23