A.

Addition on the Coordinate Plane

Materials: graph paper

1. Given the rule t = s + 3 and the starting number 0, create an input-output table to show the first six terms in the sequence.

s	t
0	
1	
2	

2. Graph the resulting ordered pairs on the coordinate plane.

3. What would the 10th term in the sequence be? Explain your thinking.

4. Create another input-output table with your own addition rule. Record the rule. Graph the resulting ordered pairs on the coordinate plane.

B.

Subtraction on the Coordinate Plane

Materials: graph paper

1. Given the rule t = s - 6, create an input-output table to show the first six terms in the sequence.

s	t
20	
19	
17	

2. Graph the resulting ordered pairs on the coordinate plane.

3. What would the 10th term in the sequence be? Explain your thinking.

4. Create another input-output table with your own subtraction rule. Record the rule. Graph the resulting ordered pairs on the coordinate plane.

C.

Multiplication on the Coordinate Plane

Materials: graph paper

1. Given the rule t = s x 12 and the starting number 2, create an input-output table to show the first six terms in the sequence.

s	t
2	
3	
4	

2. Graph the resulting ordered pairs on the coordinate plane. Use a ruler to connect the points.

3. What would the 10th term in the sequence be? Explain your thinking.

4. Create another input-output table with your own multiplication rule. Record the rule. Graph the resulting ordered pairs on the coordinate plane.

D.

Sportspark Gym

Materials: graph paper

Sportspark Gym has a $25 annual membership fee. There is also a $5 cost per visit to use the gym.

1. Complete the table to show the costs of x visits to the gym.

2. Graph the resulting ordered pairs on the coordinate plane. Use a ruler to connect the points.

s	t
0	25
2	
4	
6	
8	

3. If you visit the gym 15 times, how much will it cost? Explain your thinking.

E.

What are the Rules?

Materials: graph paper

1. Copy and complete the table below by generating the two patterns.

Rule 1	2	4		8	
Rule 2	10		6		2

2. Name the rules. Explain how you found the rules.

3. Write the corresponding terms as ordered pairs.

4. Graph the ordered pairs on a coordinate grid. Use a ruler to connect the points.

5. Create your own table and generate two patterns using rules that you choose. Graph the corresponding terms as ordered pairs on a coordinate plane

F.

Comic Books for Sale

Materials: graph paper

1. Jack bought three comic books for $18.00. Lia bought five comic books for $30.00. Create a table to show the pattern of the price of comic books.

2. What is the cost of one comic book, two comic books, four comic books?

3. Graph the corresponding terms as ordered pairs on a coordinate plane. Use a ruler to connect the points.

4. What pattern do you see?

5. Write a similar problem for a classmate to solve.

G.

What's the Pattern?

Materials: graph paper

1. Copy and complete the table below.

3	6				
9	18				

2. Identify the pattern for each row.

3. Form ordered pairs from the corresponding terms.

4. Graph the ordered pairs on a coordinate plane. Use a ruler to connect the points.

5. Create your own table and pattern. Form ordered pairs from the corresponding terms and graph them on a coordinate grid.

H.

Summer Savings

Materials: graph paper

1. Leah has $40.00. During summer vacation she charges fifteen dollars per day to babysit her two year old cousin. If Leah saves her money, how much money will she have after babysitting for 4 days, 8 days,12 days, and 16 days?

2. Create a table to show the relationship between the number of days Leah babysits and the amount of money she will save.

3. Form ordered pairs from the corresponding terms.

4. Graph the ordered pairs on a coordinate plane. Use a ruler to connect the points.

5. Write a similar problem for a classmate to solve.

I.

Complete the Table

Materials: graph paper

1. Complete the table so that each y-coordinate is 2 more than 3 times as much as its corresponding x value.

x	y	(x,y)
0		
1		
2		
3		
4		

2. Graph the ordered pairs on a coordinate plane. Use a ruler to connect the points.

3. Name 2 other points that fall on this line with y-coordinates greater than 14.

J.

Going to the Movies

Materials: graph paper

1. Lisa bought 2 movie tickets for a total of $14. Mia bought 4 movie tickets for a total of $28.

2. Create a table to show the pattern of the price of 1, 2, 3, 4, and 5 movie tickets.

3. Form ordered pairs from the corresponding terms.

4. Graph the ordered pairs on a coordinate plane. Use a ruler to connect the points.

5. What pattern do you see?