Worksheet 7

1. Find power series representation of the given function, 
	1. 
	2. 
	3. 
	4. 
	5. 
	6. 
2. Differentiate the given function and write down the power series of the derivative using term-by-term differentiation of the series representation of the original function
	1. 
	2. \_\_\_\_\_\_\_
	3. \_\_\_\_\_\_\_
3. Find the power series representation of following functions using term-by-term differentiation
	1. 
	2. 
	3. 
4. Integrate the given function and write down the power series of the result using term-by-term integration of the series representation of the original function.
	1. 
	2. 
	3. 
5. Find the power series representation of following functions using term-by-term integration
	1. 
	2. 
	3. 