2.1 Connecting the Dots: Piggies and Pools   Name: _____

Directions: Identify n and $f(n)$, then create a graph, recursive equation, and explicit equation for each scenario.

1) My Little sister is three years old. She has a piggy bank that she wants to fill. She started with 5 pennies and each day when I come home from school, she is excited when I give her the 3 pennies that I have left over from my lunch money.
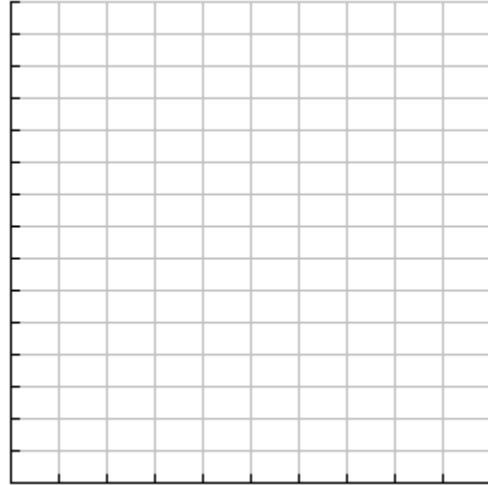
Table: Graph:

n: _____

$f(n)$: _____

n:					
$f(n)$:					

Recursive: _____

Explicit: _____

2) My family has a small pool that holds 15000 gallons of water. I decided to fill the pool with water for the summer. When I had 5 gallons of water in the pool, I decided that I didn't want to stand and watch. I determined that the pool fills at a rate of 2 gallons per minute.

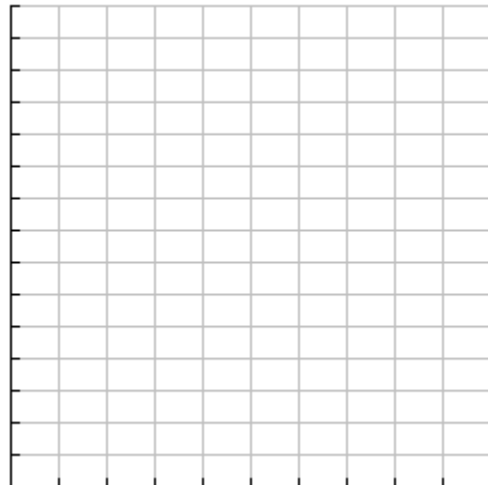Table: Graph:

n: _____

$f(n)$: _____

n:					
$f(n)$:					

Recursive: _____

Explicit: _____

3) Your grandma give you $50 for your birthday. You decide to save it and invest it in an account that earns 3% interest every month.

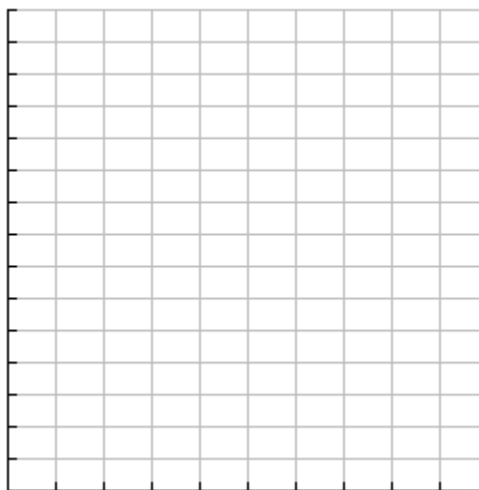Table: Graph:

n: _____

$f(n)$: _____

n:					
$f(n)$:					

Recursive: _____

Explicit: _____

4) At the end of the summer, I drain my 1500 gallon pool. I noticed that it drains faster when there is more water in the pool. I found that the pool drain 3% every minute.

Table: Graph:

n: _____

$f(n)$: _____

n:					
$f(n)$:					

Recursive: _____

Explicit: _____