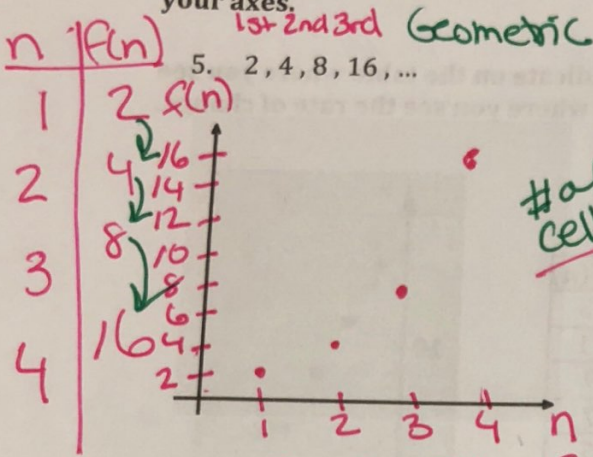


SET

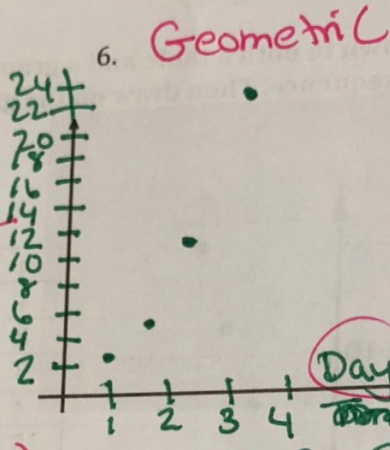
Topic: Recursive and explicit functions of geometric sequences

Below you are given various types of information. Write the recursive and explicit functions for each geometric sequence. Finally, graph each sequence, making sure you clearly label your axes.



Recursive: $f(1) = 2$ $f(n) = 2f(n-1)$

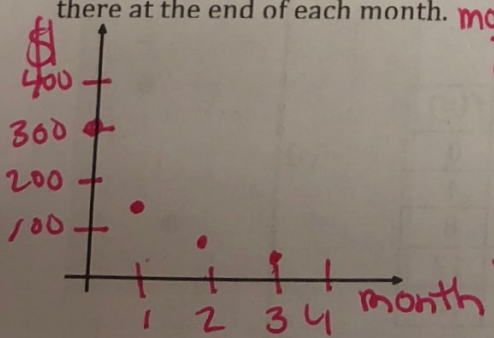
Explicit: $f(n) = 2(2)^{n-1}$



Recursive: $f(1) = 3$ $f(n) = 2f(n-1)$

Explicit: $f(n) = 3(2)^{n-1}$

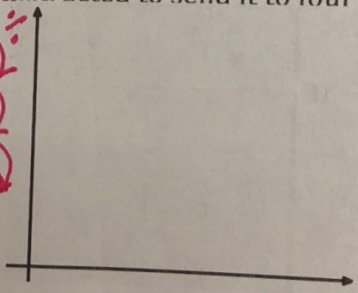
7. Claire has \$300 in an account. She decides she is going to take out half of what's left in there at the end of each month.



Recursive: $f(0) = 300$ $f(n) = \frac{1}{2}f(n-1)$

Explicit: $f(n) = 300(\frac{1}{2})^n$

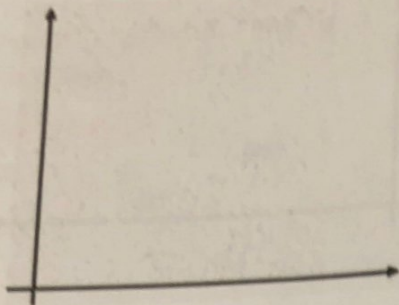
8. Tania creates a chain letter and sends it to four friends. Each day each friend is then instructed to send it to four friends and so forth.



Recursive: _____

Explicit: _____

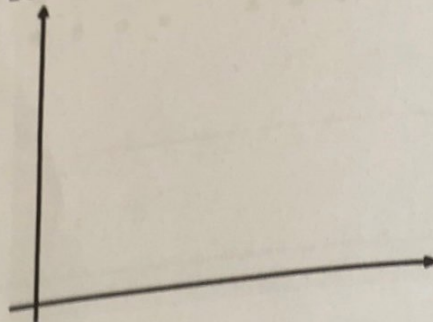
12. Claire has \$300 in an account. She decides she is going to take out \$25 each month.



Recursive: _____

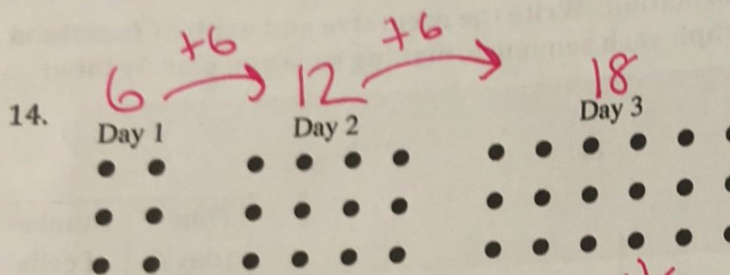
Explicit: _____

13. Each day Tania decides to do something nice for 2 strangers. What is the relationship between the number people helped and days?



Recursive: _____

Explicit: _____



Recursive: $f(1) = 6$ $f(n) = 6 + f(n-1)$

Explicit: $f(n) = 6 + 6(n-1)$

