Arithmetic Sequences:

Explicit Formula: $t_n = t_1 + d(n-1)$

Recursive Formula:

t_1 = first term

$t_n = t_{n-1} + d$

Aritmetic Series:

Sigma Notation: $\sum_{n=1}^{n} t_1 + d(n-1)$

Sum of n terms: $S_n = \frac{n}{2}(t_1 + t_n)$

Agile Mind Website: Topic 1 - Exploring - Geo seq/series pg1

Agile Mind Website: Topic 1 - Exploring - Geo seq/series pg2

Answer SAS3 - problem #2

Below are some possible "rules" to model this situation

Explicit Formula	Recursive Formula	Exponential Function
$f(n) = 3500(0.7)^{n-1}$	$f(1) = 3500$ $f(n) = f(n-1) \cdot (0.7)$	$y = a \cdot b^x$ $b = 0.7$ $y = a(0.7)^x$ a isn't 3500 because in an exponential equation a represents the y-int (x=0) and not when x=1(the 1st night). You can find a by using the point (1,3500) which is the revenue on the 1st night. $\frac{3500}{0.7} = \frac{a(0.7)^1}{0.7}$ $a = 5000$ $y = 5000(0.7)^x$