A Helping Hand

You need: a computer spreadsheet (optional)

Taki, the environmental officer for Counter Catastrophe, is working on a project to increase the population of a very rare bird. He is briefing new members of the team.

"We found 2 nests 3 years ago, each containing 1 egg. The eggs were carefully incubated. Both eggs hatched and produced 1 male and 1 female. That female has now laid a clutch of 3 eggs. We've scanned the eggs, and everything's fine. It looks like we will get 3 healthy chicks."

How long will it be before they can be released into the wild, Taki?

ACTIVITY



Population increase						
F9 f x X s =B9+C9+D9+E9						
	A	B	C	D	E	F
1	Year	Adult male	Adult female	Young male	Young female	Total birc
2	1			1	1	2
3	2			1	1	2
4	3	1	1	2	1	5
5	4	1	1	2	1	5
6	5	3	2	4	2	11
7	6	3	2	4	2	11
8	7	7	4	8	4	23
9	8	7	4	8	4	23
10	9	15	8	16	8	47
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Taki created a spreadsheet on his computer to predict how long it would take for the population to reach 400.

We need to get the population up to 400

- 1. What assumptions has Taki made about:
 - a. how often the birds lay eggs?
 - b. how many eggs are laid each time?
 - c. what gender the chicks are?
- **2.** a. If Taki's assumptions are right, how many years will it take to get 400 of these birds?
 - **b.** How many years would it take to get 400 birds if the female birds laid 4 eggs each second year and the chicks were 2 males and 2 females?