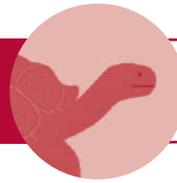


Knee-Deep in Green Peppers



EVOLUTION

Carefully cut open your green pepper and remove all the seeds. Count the seeds and record the total in the box on the right.

_____ Seeds

Let's call this green pepper the first generation. We are starting with a population of only one green pepper. How big do you think this population can get in four generations?

Your prediction: _____

Generation 1:
_____1_____
Green Pepper

Suppose that all of the seeds in your green pepper sprout and grow successfully into new green pepper plants. Those plants are the second generation. How many plants are in this generation?

Generation 2:

Plants

Let's estimate that each of those plants produces 10 green peppers. How many total peppers would that be?

Generation 2:

Green Peppers

Now, let's assume that every pepper in generation 2 has the same fertility as the original one had. Suppose that each pepper in generation 2 produces the same number of seeds as the first pepper did, and that all of those seeds grow into new green pepper plants. Those plants are the third generation. How many plants are in this generation?

Generation 3:

Plants

If each of those individual plants produces 10 green peppers, how many total peppers would that be?

Generation 3:

Green Peppers

What if this continues for one more generation? Suppose each green pepper in generation 3 produces the same number of seeds as that original green pepper, and all of those seeds grow into new green pepper plants. How many plants are in this fourth generation?

Generation 4:

Plants

Are you surprised by the size of the population that could be produced in a short time by that single green pepper? Does this really happen? Do all seeds germinate to produce the expected number of plants? Does each plant produce the expected number of peppers?

Name _____

Date _____