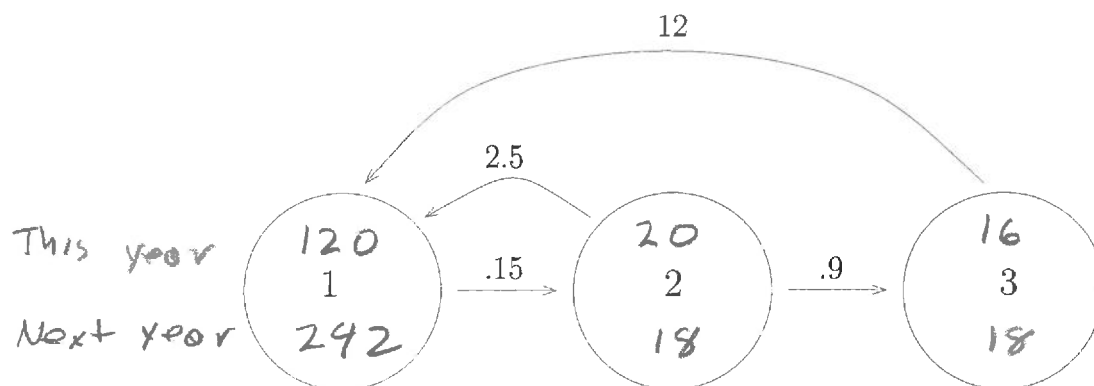


Quiz 12

Name: key

You must show your work to get full credit.

A type of wild parsley has three stages. Stage 1 is seedlings. Stage 2 is juveniles. Stage 3 is adults. A population of this parsley is growing in a meadow. The life history of this population is summarized in the following loop diagram.



1. What does the number .15 represent? *The proportion of seedlings that survive to be juveniles*

2. What does the number 12 represent? *The average number of offspring of an adult that survive to be seedlings.*

3. Assume that this year the field has 120 seedlings, 20 juveniles, and 16 adults. Then

$20(2.5) + 16(12) = 242$ How many seedlings are there next year? 242

$120(.15) = 18$ How many juveniles are there next year? 18

$20(.9) = 18$ How many adults are there next year? 18

4. With the same data as the last problem:

$18(2.5) + 18(12) = 261$ How many seedlings are there year after next? 261

$242(.15) = 36.3$ How many juveniles are there year after next? 36.3

$18(.9) = 16.2$ How many adults are there year after next? 16.2