

a 2 year old male feral cat has a probability of 0.72334 of getting to age 3. What would be the probability of 2 male feral cats age 2 years old getting to 3 years old? What would be the probability of 5 male feral cats age 2 years old getting to 3 years old?

1. As both two cats must survive and their lives are independent,

$$P(A) = P(A_1)P(A_2)$$

$P(A_1), P(A_2)$ – probabilities of cats to survive.

$$P(A) = P(A_1)P(A_2) = 0.72334 \cdot 0.72334 = 0.52322$$

2. As all cats must survive and their lives are independent,

$$P(A) = P(A_1)P(A_2) \dots P(A_5)$$

$P(A_1), P(A_2) \dots$ – probabilities of cats to survive.

$$P(A) = P(A_1)P(A_2) \dots P(A_5) = 0.72334^5 = 0.19802$$