Physical Principles in Biology
Biology 3550
Fall 2018

Lecture 6:

The King's Sibling

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Clicker Question #1

The King has one sibling.
What is the probability that the King's sibling is a sister?

A) 1/4

B) 1/3

C) 1/2

D) 2/3

E) 3/4

Credit given for 1/2, too.

The King and His Sibling

- The sample set for two siblings:

$$S = \{(M, M), (M, F), (F, M), (F, F)\}$$

  M: Male, F: Female

- But, we know that one of the siblings is a male (the King).

- With this information, the sample set is reduced to:

$$S = \{(M, M), (M, F), (F, M)\}$$

- Two of the three outcomes include a sister.

- The probability that the King's sibling is a sister is 2/3!