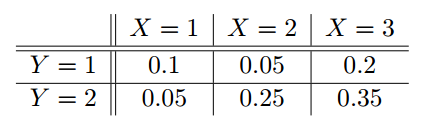
1. Derive the following for random variables and
   1. =
   3. =
2. Given 2 die and with , find the following
   1. has a larger value than

|  |  |
| --- | --- |
|  | Values |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Since there are possible combination of outcomes, and we see from the table that 15 values that are greater than the answer is

* 1. Expected value of the sum of and

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sums |  |  |  |  |  |  |
|  | 2 | 3 | 4 | 5 | 6 | 7 |
|  | 3 | 4 | 5 | 6 | 7 | 8 |
|  | 4 | 5 | 6 | 7 | 8 | 9 |
|  | 5 | 6 | 7 | 8 | 9 | 10 |
|  | 6 | 7 | 8 | 9 | 10 | 11 |
|  | 7 | 8 | 9 | 10 | 11 | 12 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Value | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Value |  |  |  |  |  |  |  |  |  |  |  |

1. For what Is ?   
   The probability that a continuous random variable equal any number is exactly 0
2. For and from . pulled from and and , find which model is most likely

Given that

is the most likely model