 Uniformly Distributed Random Variables

1. Suppose you choose a real number X from the interval [4, 10] with a Probability Density Function .
2. Find .

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1. If we change our interval to , what is the value of ?

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1. From this we can establish that for any random variable defined on interval with PDF a constant, , is equal to:

Also, we can establish that so long as:

The mean of a uniform distribution defined on an interval is:

1. The amount of Petrol sold daily at a petrol station is uniformly distributed, with a minimum of 1000 gallons and a maximum of 3000 gallons. If is the number of gallons sold in a day, what is

, the probability of the petrol station selling at least 2000 gallons on a given day?

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