**Reinforcement Learning - Supply Chain Ordering Management: An application to the beer game**

**Data Generation**

For the first main test problem, we use the customer demands and lead time data from Kimbrough et al. For test problems 1-3, we use the data generated by Chaharsooghi et al. The parameters were introduced by Kimbrough et al: Customer demand uniformly distributed between [0,15] and lead-times uniformly distributed from 0 to 4.

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Automatisch generierte Beschreibung

For our own test problem we define a list of random variables for the customer demands and the lead times. The random values for the customer demands can take the integers 0 to 15. For the lead times, integers in the range 0 to 4 are generated. The size of the lists is 35 for both and represents the number of calendar weeks.

*# Own test problem*

customer\_demand **=** list(np**.**random**.**randint(low**=**0, high**=**15, size**=**35))

lead\_times **=** list(np**.**random**.**randint(low**=**0, high**=**4, size**=**35))

**References**

S.O. Kimbrough, D.J. Wu, F. Zhong, Computers play the beer game: can artificial agents manage supply chains? Decision Support Systems 33(2002) 323–333.