**What is the difference between token bucket and leaky bucket algorithms?**

**Leaky bucket:**  
Parameters: *rate*  
1. Smooth out traffic by passing packets only when there is a token. Does not permit burstiness.  
2. Discards packets for which no tokens are available (no concept of queue)  
3. Application: Traffic shaping or traffic policing.  
  
**Token bucket:**  
Params: *rate, burstiness.*  
1. Token bucket smooths traffic too but permits burstiness - which is equivalent to the number of tokens accumulated in the bucket.  
2. Discards tokens when bucket is full, but never discards packets (infinite queue).  
3. Application: Network traffic shaping or rate limiting.

**Q. An ATM network uses a token Bucket scheme for traffic shaping. A new token is put into the bucket every 5 µsec. Each token is good for one cell, which contains 48 bytes of data. What is the Maximum sustainable data rate?**