

**Here are the questions from [8.2 Monte Carlo approximations and Importance sampling - Quiz]**

1. *When can we in practice draw samples for a distribution?*

Optional Answers:

1. We can always generate samples from any density function as long as the function is a proper density, i.e., it integrates to one.
2. Only when the density IS one of the standard densities for which we have pseudo-random generators, e.g., `rand()`, `mvnrnd()`...
3. Only when the density can be DESCRIBED using standard densities for which we have pseudo-random generators, e.g., `rand()`, `mvnrnd()`...

2. *Could we from the expression of the weight get a feeling for how we should choose the proposal density  $q(x)$ ?*

Optional Answers:

1. Yes, we would like  $q(x)$  to be as small as possible as that would mean that all samples will have max. weight.
2. Yes, we would like  $q(x)$  to be close to  $p(x)$  as that would mean that all samples will have weights close to  $1/N$  (as in the MC approx.).
3. No, it is not possible to see from the expression.

Thank You