Some useful properties for ML

- **Theorem** (**Post-processing**): If $M(D)$ is ϵ-private, and f is any function, then $f(M(D))$ is ϵ-private.

- **Theorem** (**Composition**): If $M_1, \dots, M_k$ are ϵ-private, then $M(D) \equiv \left(M_1(D), \dots, M_k(D)\right)$ is $(k * \epsilon)$-private.

- We can design algorithms as we normally would. Just access the data using differentially private **subroutines**, and keep track of our "privacy budget" (**modularity**)

Private Kernel K-means with Random Fourier Features