

# MWEM: Multiplicative Weights + Exponential Mechanism

Imagine: a quite large set **Q** of counting questions.  
an initial guess **D** about the data distribution.

Let MWEM(**A**): repeat until happy ...

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$$\mathbf{score}(\mathbf{A}, \mathbf{q}) = | \mathbf{q}(\mathbf{A}) - \mathbf{q}(\mathbf{D}) |.$$

2. Use the Laplace mech to measure **q**(**A**) + noise.

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3. Update guess about distribution **D**, using MW.