Computation of the Bootstrap test statistic for testing $P = Q$

1: Draw B samples of size $n + m$ with replacement from $\mathbf{x}$
2: Evaluate test statistic $t(\cdot)$ on each sample $\mathbf{x}^{*b}, b = 1, \ldots, B$
3: Approximate the **achieved significance level (ASL)** by

$$\widehat{\mathrm{ASL}}_{\mathrm{boot}} = \#\{t(\mathbf{x}^{*b}) \geq t_{obs})\}/B$$