**Identifying the Reference Distribution**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Population | Variance | Sample Size | Reference Distribution  | Test Statistic |
| Normal | Known | Any | $$N\left(0,1\right)$$ | $$\frac{\overbar{x}-μ}{\frac{σ}{\sqrt{n}}}$$ |
| Normal | Unknown | Any | $$t\_{n-1}$$ | $$\frac{\overbar{x}-μ}{\frac{s}{\sqrt{n}}}$$ |
| Any | Known | $$\geq 30$$ | $$N\left(0,1\right)$$ | $$\frac{\overbar{x}-μ}{\frac{σ}{\sqrt{n}}}$$ |
| Any | Unknown | $$\geq 30$$ | $$N\left(0,1\right)$$ | $$\frac{\overbar{x}-μ}{\frac{s}{\sqrt{n}}}$$ |