**Theorem** The standard Cauchy distribution is a special case of the Cauchy distribution when \( a = 0 \) and \( \alpha = 1 \).

**Proof** The Cauchy distribution has probability density function

\[
f(x) = \frac{1}{\alpha \pi \left(1 + \left(\frac{x-a}{\alpha}\right)^2\right)} \quad -\infty < x < \infty.
\]

When \( a = 0 \) and \( \alpha = 1 \), this becomes

\[
f(x) = \frac{1}{\pi (1 + x^2)} \quad -\infty < x < \infty,
\]

which is the probability density function of the standard Cauchy distribution.

**APPL verification:** The APPL statements

```appl
CauchyRV(0,1);
StandardCauchyRV();
```

yield the same probability density function.