

# Package ‘UnitCircle’

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**Type** Package

**Title** Check if Roots of a Polynomial Lie Outside the Unit Circle

**Version** 0.1.3

**Author** Jonathan Berrisch

**Maintainer** Jonathan Berrisch <Jonathan@Berrisch.biz>

**Description** The `uc.check()` function checks whether the roots of a given polynomial lie outside the Unit circle. You can also easily draw an unit circle.

**License** GPL-3

**Encoding** UTF-8

**RoxygenNote** 6.0.1

**URL** <https://github.com/BerriJ/UnitCircle>

**BugReports** <https://github.com/BerriJ/UnitCircle/issues>

**NeedsCompilation** no

**Repository** CRAN

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uc.check	<i>Check if Roots of a Polynomial Lie Outside the Unit Circle</i>
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## Description

This function outputs the roots of a given polynomial. It also checks whether they lie outside the unit circle and creates a plot to illustrate the results in an intuitive way.

**Usage**

```
uc.check(pol_, plot_output = T, print_output = T)
```

**Arguments**

<code>pol_</code>	the vector of polynomial coefficients in increasing order.
<code>plot_output</code>	Logical that defines whether to create a plot.
<code>print_output</code>	Logical that defines whether to print the results.

**Examples**

```
uc.check(pol_ = c(1,0,0.999999999), plot_output = FALSE)
```

```
uc.check(pol_ = c(2,0,2.2,-3), plot_output = TRUE)
```

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