# Package: UnitCircle (via r-universe)

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**Type** Package

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

**Version** 0.1.3

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**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

**Repository** https://berrij.r-universe.dev

**RemoteUrl** https://github.com/berrij/unitcircle

**RemoteRef** HEAD

**RemoteSha** 084b352d488d0a3ef28dbd75463ae2c81e2b3e9c

## Contents

uc.check *Check if Roots of a Polynomial Lie Outside the Unit Circle*

## 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

| | |
|---|---|
| pol_ | the vector of polynomial coefficients in increasing order. |
| plot_output | Logical that defines whether to create a plot. |
| print_output | 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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