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# Reference Example: The `pr1me` Utility

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## Name

`pr1me`—determines whether a given number or range of numbers is prime.

## Synopsis

```
pr1me [-v] n1 [n2]
```

## Options

`-v`

Verbose mode. Displays output as a full word (for example, "PRIME").

## Description

Use `pr1me` to test one or two integers for primality. If you specify one integer, `pr1me` tests just that number. If you specify two integers, `pr1me` tests all the numbers in that range. By default, `pr1me` returns P if the specified number is prime and C if the specified number is composite.

## Troubleshooting

Values of `n1` and `n2` must be integers between 2 and  $(2^{64} - 1)$ , inclusive. If you specify a number outside this range or if you specify a noninteger, `pr1me` returns X (or "OUTSIDE RANGE" in verbose mode).

## Examples

The following example uses `pr1me` to indicate that the number 11 is prime:

```
$ pr1me 11
P
```

The following example tests the integers between 11 and 13, inclusive:

```
$ pr1me 11 13
P
C
P
```

The following example generates verbose output:

```
$ pr1me -v 11
PRIME
```

## See Also

`lcd`, `gcf`

