

**NAME**

openssl-prime, prime – compute prime numbers

**SYNOPSIS**

**openssl prime** [**-help**] [**-hex**] [**-generate**] [**-bits**] [**-safe**] [**-checks**] [*number...*]

**DESCRIPTION**

The **prime** command checks if the specified numbers are prime.

If no numbers are given on the command line, the **-generate** flag should be used to generate primes according to the requirements specified by the rest of the flags.

**OPTIONS**

**[-help]**

Display an option summary.

**[-hex]**

Generate hex output.

**[-generate]**

Generate a prime number.

**[-bits num]**

Generate a prime with **num** bits.

**[-safe]**

When used with **-generate**, generates a “safe” prime. If the number generated is **n**, then check that **(n-1)/2** is also prime.

**[-checks num]**

Perform the checks **num** times to see that the generated number is prime. The default is 20.

**COPYRIGHT**

Copyright 2017 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the OpenSSL license (the “License”). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at <https://www.openssl.org/source/license.html>.