#### **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  $\mathbf{n}$ , then check that  $(\mathbf{n}-\mathbf{1})/2$  is also prime.

### [-checks num]

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

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