

# Contents

<b>1</b>	<b>Functions</b>	<b>2</b>
1.1	factor.mpqs – MPQS . . . . .	2
1.1.1	mpqsfind . . . . .	2
1.1.2	mpqs . . . . .	2
1.1.3	eratosthenes . . . . .	2

# Chapter 1

## Functions

### 1.1 factor.mpqqs – MPQS

#### 1.1.1 mpqsfind

```
mpqsfind(n: integer, s: integer=0, f: integer=0, m: integer=0, verbose:  
bool=False )  
    → integer
```

Find a factor of  $n$  by MPQS(multiple-polynomial quadratic sieve) method.

MPQS is suitable for factorizing a large number.

Optional arguments  $s$  is the range of sieve,  $f$  is the number of factor base, and  $m$  is multiplier. If these are not specified, the function guesses them from  $n$ .

#### 1.1.2 mpqs

```
mpqs(n: integer, s: integer=0, f: integer=0, m: integer=0 )  
    → factorlist
```

Factorize  $n$  by MPQS method.

Optional arguments are same as **mpqsfind**.

#### 1.1.3 eratosthenes

```
eratosthenes(n: integer) → list
```

Enumerate the primes up to  $n$ .

# Bibliography