

**NAME**

**factor** — ise integers

**SYNOPSIS**

**factor** *number...*

**factor** < numbers

**DESCRIPTION**

Writes factors of all *numbers* (if none specified, read from standard input, delimited by whitespace) to the standard output stream in ascending order, one per line, in the form

*number*:prime prime prime

No primes are written for *numbers* smaller than 2.

**EXIT STATUS**

1 if at least one *number* wasn't actually, or was out of range.

**EXAMPLES**

```
$ factor 1410 1981
```

```
1410: 2 3 5 47
```

```
1981: 7 283
```

```
$ tr -cd '0-9 \t\n' < /dev/urandom | dd bs=60 count=1 | factor
```

```
11: 11
```

```
41615: 5 7 29 41
```

```
0:
```

```
81: 3 3 3 3
```

```
1:
```

```
552: 2 2 2 3 23
```

```
7: 7
```

```
4900: 2 2 5 5 7 7
```

```
195283: 11 41 433
```

```
440343080901: 3 3 29 53 31832797
```

```
7472183475: 3 5 5 99629113
```

**HISTORY**

**factor** first appeared in Version 7 AT&T UNIX as `factor(1)`:

```
factor [ number ]
```

A direct C port appeared in 4.1BSD as `factor(6)`. It had been rewritten in 4.3BSD-Reno to parse one number per line, as opposed to just separating them by whitespace, and handle multiple arguments.

**BUGS**

This implementation uses a simplistic wheel factorisation algorithm, which isn't going to win any awards soon.