

# Prime Product

A positive integer  $m$  is a prime product if it can be written as  $p \times q$ , where  $p$  and  $q$  are both primes.

Write a Python function `primeproduct(m)` that takes an integer  $m$  as input and returns `True` if  $m$  is a prime product and `False` otherwise. (If  $m$  is not positive, your function should return `False`.)

Here are some examples of how your function should work.

```
>>> primeproduct(6)
```

```
True
```

```
>>> primeproduct(188)
```

```
False
```

```
>>> primeproduct(202)
```

```
True
```