
Algorithm 3.1.10 compute x^n

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1: procedure POWER( $n$ : integer;  $x$ : real number)
2:    $exponent \leftarrow |n|$ 
3:    $product \leftarrow 1$ 
4:   while  $exponent > 0$  do                                 $\triangleright$  multiply  $x$  by itself  $|n|$  times
5:      $product \leftarrow product \times x$ 
6:      $exponent -= 1$ 
7:   end while
8:   if  $n < 0$  then                                        $\triangleright$   $n$  is negative so get the inverse
9:      $product \leftarrow \frac{1}{product}$ 
10:  end if
11:  return  $product$                                           $\triangleright$  this  $product$  is  $x^n$ 
12: end procedure
```
