Exponential ^ 0 0 0 Power

`^y` is equivalent to `e^y`, where `e` is Euler's number `^1` (approximately 2.71828). The natural logarithm (`^.`) is inverse to `^` (that is, `y=^.^y` and `y=^^.y`).

The monad `x&^` is inverse to the monad `x&^.` . For example:

```
   10&^ 10&^. 1 2 3 4 5
1 2 3 4 5

   10&^. 10&^ 1 2 3 4 5
1 2 3 4 5
```

`x^2` and `x^3` and `x^0.5` are the square, cube, and square root of `x`.

In general, `x^y` is `^y*^.x`, applying for complex numbers as well as real.

For a non-negative integer `y`, the phrase `x ^ y` is equivalent to `*/y # x`; in particular, `*/` on an empty list is `1`, and `x^0` is `1` for any `x`, including `0`.

The fit conjunction applies to `^` to yield a stope defined as follows: `x!.k n` is `*/x + k*i. n`. In particular, `^!._1` is the falling factorial function.

The last result in the first example below illustrates the falling factorial function, formed by the fit conjunction. See Chapter 4 of [8] for the use of stope functions, stope polynomials, and Stirling numbers in the difference calculus:

```
   e=: ^ 1 [ x=: 4 [ y=: 0 1 2 3
   ,.&.> x (e"_ ; e&^@] ; ^ ; ^@(] * ^.@]) ; (]^]) ; ^!._1) y
+-------+-------+--+--+--+--+
|2.71828|      1| 1|_.| 1| 1|
|       |2.71828| 4| 1| 1| 4|
|       |7.38906|16| 4| 4|12|
|       |20.0855|64|27|27|24|
+-------+-------+--+--+--+--+

   S2=: %.@S1=: (^!._1/~ %. ^/~) @ i. @ x:
   (S1;S2) 8
+--------------------------+-----------------+
|1 0  0  0  0   0    0     0|1 0 0 0 0  0  0   0|
|0 1 _1  2 _6  24 _120   720|0 1 1 1 1  1  1   1|
|0 0  1 _3 11 _50  274 _1764|0 0 1 3 7 15 31  63|
|0 0  0  1 _6  35 _225  1624|0 0 0 1 6 25 90 301|
|0 0  0  0  1 _10   85  _735|0 0 0 0 1 10 65 350|
|0 0  0  0  0   1  _15   175|0 0 0 0 0  1 15 140|
|0 0  0  0  0   0    1   _21|0 0 0 0 0  0  1  21|
|0 0  0  0  0   0    0     1|0 0 0 0 0  0  0   1|
+--------------------------+-----------------+
```

`S1` gives (signed) Stirling numbers of the first kind and `S2` gives Stirling numbers of the second kind. They can be used to transform between ordinary and stope polynomials. Note that `x:` gives extended precision.