Similarly, we want

$$n^{\underline{-1}}/n^{\underline{-2}} = n + 2$$

so

$$n^{\underline{-2}} = \frac{1}{(n+1)(n+2)}$$

We define

$$n^{\underline{-m}} = \frac{1}{(n+1)(n+2)\cdots(n+m)}$$