Program-11

Discover a recursive formula for a given recursive sequence and vice-varsa

Theory:-A recursive sequence is a sequence in which terms are defined using one or more previous terms which are give
.If you know the nth term of an arithmetic sequence and you know the common difference,d you can find the (n+1)th term
using the recursive formula an+1=an+d.
If you know the nth term and the common ration ,rof a geometric sequence , you can find the (n+1)th
h term using teh recursive formula.an+1=an.r

Source code:-

```
def a(n):
        if n==1:
                return 1
        else:
                return a(n-1)+1/a(n-1)^2
```

Output:-

```
sage: a(1)
1
Sage: a(2)
2
Sage: a(3)
9/4
```