

```

Limit[Log[a, a], {a -> 1}]
{1}
f[n_, s_, a_] := (-1)^s n (a - 1)^s LerchPhi[a, 1 - s, Log[a, n]]
f[1.001, 2, 1.000001]
1. + 1.22465 × 10-16 i
N[Gamma[2, -Log[1.001]]]
1. + 1.22424 × 10-22 i
ff[n_, s_, t_, a_] := (-1)^s n^ (1 - t) (a - 1)^s LerchPhi[a, 1 - s, Log[a, n^ (1 - t)]]
ff[111, 2, -1, 1.001]
-103 777. + 1.22587 × 10-16 i
N[Gamma[2, - (1 - (-1)) Log[111]]]
-103 731. + 1.27034 × 10-11 i

```