```
Ser[f_] := Ser[f] = Table[SeriesCoefficient[f[x], {x, 0, n}], {n, 0, 30}]
d[n_, k_] := d[n, k] = Sum[d[j, k - 1] d[n / j, 1], {j, Divisors[n]}];
d[n_, 1] := 1; d[n_, 0] := 0; d[1, 0] := 1
d2[n_, k_] := Sum[d2[j, k - 1] d2[n / j, 1], {j, Divisors[n]}];
d2[n_, 1] := 1; d2[1, 1] := 0; d2[n_, 0] := 0; d2[1, 0] := 1
dd[co_, n_, 1] := dd[co, n, 1] = Sum[ co[[k + 1]] d[n, k], {k, 0, 30}]
dd[co_, n_, k_] := dd[co, n, k] = Sum[dd[co, j, k - 1] dd[co, n / j, 1], {j, Divisors[n]}];
dd[co_, n_, 0] := dd[co, n, 0] = 1
ii[co_, co2_, n_, 1] := ii[co, co2, n, 1] = Sum[ co[[k + 1]] dd[co2, n, k], {k, 0, 30}]
ii[co_, co2_, n_, k_] :=
 ii[co, co2, n, k] = Sum[dd[co, co2, j, k - 1] dd[co, co2, n / j, 1], {j, Divisors[n]}];
ii[co_, co2_, n_, 0] := ii[co, co2, n, 0] = 1
lgf[x_] := Log[x + 1]
lg := lg = Ser[lgf]
as := as = Ser[ArcSin]
sn := sn = Ser[Sin]
ac := ac = Ser[ArcCos]
cs := cs = Ser[Cos]
tt := tt = Ser[Tan]
at := at = Ser[ArcTan]
```

```
Table[{n, N[dd[tt, n, 1]], N[ii[at, tt, n, 1]]}, {n, 2, 20}] // TableForm
```

2	3.42546	591628.
3	3.42546	591628.
4	8.75948	2.01105×10^{7}
5	3.42546	591628.
6	14.0935	3.96293×10^{7}
7	3.42546	591628.
8	23.5347	4.74888×10^{8}
9	8.75948	2.01105×10^{7}
10	14.0935	3.96293×10^{7}
11	3.42546	591628.
12	53.0852	1.38444×10^{9}
13	3.42546	591628.
14	14.0935	3.96293×10^{7}
15	14.0935	3.96293×10^{7}
16	64.1784	8.75045×10^{9}
17	3.42546	591628.
18	53.0852	1.38444×10^{9}
19	3.42546	591628.
20	53.0852	1.38444×10^{9}