```
cc := CoefficientList[Series[x / Log[1+x], {x, 0, 30}], x]
cc2 := CoefficientList[Series[x / Log[1-x], {x, 0, 30}], x]
FX[n_] := N[Sum[Log[1+n]cc[[k+1]]n^{(k)}, {k, 0, 30}]]
FX2[n_] := N[Sum[Log[1-n]cc2[[k+1]]n^{(k)}, {k, 0, 30}]]
FX2[.3]
0.3
Series[Log[1+x], \{x, 0, 20\}]
Series[Log[1-x], {x, 0, 20}]
Series[Log[-1+x], \{x, 0, 20\}]
Series[Log[-1-x], \{x, 0, 20\}]
         \frac{x^{11}}{11} - \frac{x^{12}}{12} + \frac{x^{13}}{13} - \frac{x^{14}}{14} + \frac{x^{15}}{15} - \frac{x^{16}}{16} + \frac{x^{17}}{17} - \frac{x^{18}}{18} + \frac{x^{19}}{19} - \frac{x^{18}}{19} + \frac{x^{19}}{19} - \frac{x^{19}}{19} \frac{x^{19}}{19
-x - \frac{x^2}{2} - \frac{x^3}{3} - \frac{x^4}{4} - \frac{x^5}{5} - \frac{x^6}{6} - \frac{x^7}{7} - \frac{x^8}{8} - \frac{x^9}{9} - \frac{x^{10}}{10}
           x^{11} x^{12} x^{13} x^{14} x^{15} x^{16} x^{17} x^{18} x^{19}
           <u>11 12 13 14 15 16 17 18 19</u>
                                                          x^{2} x^{3} x^{4} x^{5} x^{6} x^{7} x^{8} x^{9} x^{10}
         \frac{\mathbf{x}^{11}}{11} - \frac{\mathbf{x}^{12}}{12} - \frac{\mathbf{x}^{13}}{13} - \frac{\mathbf{x}^{14}}{14} - \frac{\mathbf{x}^{15}}{15} - \frac{\mathbf{x}^{16}}{16} - \frac{\mathbf{x}^{17}}{17} - \frac{\mathbf{x}^{18}}{18} - \frac{\mathbf{x}^{19}}{19} - \frac{\mathbf{x}^{20}}{20} + \mathsf{O[x]}^{21}
 \dot{\mathbb{1}} \ \pi + x - \frac{x^2}{2} + \frac{x^3}{3} - \frac{x^4}{4} + \frac{x^5}{5} - \frac{x^6}{6} + \frac{x^7}{7} - \frac{x^8}{8} + \frac{x^9}{9} - \frac{x^{10}}{10} + \frac{x^{10}}
          \frac{x^{11}}{11}-\frac{x^{12}}{12}+\frac{x^{13}}{13}-\frac{x^{14}}{14}+\frac{x^{15}}{15}-\frac{x^{16}}{16}+\frac{x^{17}}{17}-\frac{x^{18}}{18}+\frac{x^{19}}{19}-\frac{x^{20}}{20}+\text{O}\left[\textbf{x}\right]^{21}
```