

Numerator	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Denominator															
1	0.000														
2	-1.000	0.000													
3	-1.585	-0.585	0.000												
4	-2.000	-1.000	-0.415	0.000											
5	-2.322	-1.322	-0.737	-0.322	0.000										
6	-2.585	-1.585	-1.000	-0.585	-0.263	0.000									
7	-2.807	-1.807	-1.222	-0.807	-0.485	-0.222	0.000								
8	-3.000	-2.000	-1.415	-1.000	-0.678	-0.415	-0.193	0.000							
9	-3.170	-2.170	-1.585	-1.170	-0.848	-0.585	-0.363	-0.170	0.000						
10	-3.322	-2.322	-1.737	-1.322	-1.000	-0.737	-0.515	-0.322	-0.152	0.000					
11	-3.459	-2.459	-1.874	-1.459	-1.138	-0.874	-0.652	-0.459	-0.290	-0.138	0.000				
12	-3.585	-2.585	-2.000	-1.585	-1.263	-1.000	-0.778	-0.585	-0.415	-0.263	-0.126	0.000			
13	-3.700	-2.700	-2.115	-1.700	-1.379	-1.115	-0.893	-0.700	-0.531	-0.379	-0.241	-0.115	0.000		
14	-3.807	-2.807	-2.222	-1.807	-1.485	-1.222	-1.000	-0.807	-0.637	-0.485	-0.348	-0.222	-0.107	0.000	
15	-3.907	-2.907	-2.322	-1.907	-1.585	-1.322	-1.100	-0.907	-0.737	-0.585	-0.447	-0.322	-0.206	-0.100	0.000

For example, $\log_2 3/7 = -1.222$