

5.8.8 Example 9: *h*-indices

Scenario: The user would like to calculate the *h*-indices of an entity that consists of 10 publications. They have not selected any viewing or calculation options.

Entity with 10 Publications											
	Publication year	2005	2003	1998	1997	1997	1998	2008	1997	2001	2002
	Total citations received by this publication	2	5	4	12	4	12	4	6	2	5
Order and rank the publications											
Step 1	Sort the publications by their citation counts, from largest to smallest.	12	12	6	5	5	4	4	4	2	2
Step 2	Rank each publication from highest to lowest citation count	1	2	3	4	5	6	7	8	9	10
Question:	How do I calculate <i>h</i> -index										
Answer:	Is the citation count for the publication (step 1) as least as large as its rank (step 2)?	12 ≥ 1 Yes	12 ≥ 2 Yes	6 ≥ 3 Yes	5 ≥ 4 Yes	5 ≥ 5 Yes	4 ≥ 6 No	4 ≥ 7 No	4 ≥ 8 No	2 ≥ 9 No	2 ≥ 10 No
	Identify the highest value for which citation count is at least as large as the publication's rank.	<i>h</i> -index ≥ 1	<i>h</i> -index ≥ 2	<i>h</i> -index ≥ 3	<i>h</i> -index ≥ 4	<i>h</i> -index = 5					
	<i>h</i> -index = 5										
Question:	How do I calculate <i>g</i> -index?										
Answer:	Sum the citation counts of the publications ranked up to and including the current position.	12 12	12+12 24	12+12+6 30	12+12+6+5 35	12+12+6+ 5+5 40	12+12+6+ 5+4 44	12+12+6+ 5+5+4+4 48	12+12+6+ 5+5+4+4+4 52	12+12+6+5+ 5+4+4+4+2 54	12+12+6+5+ 5+4+4+4+2+2 56
	Calculate the square of the rank (from step 2).	1x1 1	2x2 4	3x3 9	4x4 16	5x5 25	6x6 36	7x7 49	8x8 64	9x9 81	10x10 100
	Is the sum of the citation counts at least as large as the square of the rank?	12 ≥ 1 Yes	24 ≥ 4 Yes	30 ≥ 9 Yes	35 ≥ 16 Yes	40 ≥ 25 Yes	44 ≥ 36 Yes	48 ≥ 49 No	52 ≥ 64 No	54 ≥ 81 No	56 ≥ 100 No
	Identify the highest value for which the sum of the citation counts is at least as large as the square of the rank.	<i>g</i> -index ≥ 1	<i>g</i> -index ≥ 2	<i>g</i> -index ≥ 3	<i>g</i> -index ≥ 4	<i>g</i> -index ≥ 5	<i>g</i> -index ≥ 6				
	<i>g</i> -index = 6										
Question:	How do I calculate <i>m</i> -index?										
Answer:	Earliest Publication Year in set	1997									
	Current Year	2014									
	Calculate number of years since earliest publication.	2014 – 1997 + 1 18									
	Divide <i>h</i> -index by number of years	5 / 18 <i>m</i> -index = 0.3									

The *h*₅-index is the *h*-index based upon data from the last 5 years. For example, when selecting 2017, the *h*₅-index will reflect the date range 2013-2017 for both documents and citations.