

# Calculating Jaccard coefficient

The table shows the pathological test results for three individuals.

Name	Gender	Fever	Cough	Test-1	Test-2	Test-3	Test-4
Jack	M	Y	N	P	N	N	A
Mary	F	Y	N	P	A	P	N
Jim	M	Y	P	N	N	N	A

Calculate Jaccard coefficient for the following pairs:

- (Jack, Mary)
- (Jack, Jim)
- (Jim, Mary)

<b>Jack</b>	M	Y	N	P	N	N	A
<b>Mary</b>	F	Y	N	P	A	P	N
<b>Matching</b>	N	Y	Y	Y	N	N	N
<b>Total number of variables</b>				7			
<b>Matching variables</b>				3			
<b>None Matching variables</b>				4			

Jaccard coefficient = 0.33

<b>Jack</b>	M	Y	N	P	N	N	A
<b>Jim</b>	M	Y	P	N	N	N	A
<b>Matching</b>	Y	Y	N	N	Y	Y	Y
<b>Total number of variables</b>				7			
<b>Matching variables</b>				5			
<b>None Matching variables</b>				2			

Jaccard coefficient = 0.67

<b>Jim</b>	M	Y	P	N	N	N	A
<b>Mary</b>	F	Y	N	P	A	P	N
<b>Matching</b>	N	Y	N	N	N	N	N
<b>Total number of variables</b>				7			
<b>Matching variables</b>				1			

Jaccard coefficient = 0.75