

Language	MATLAB/Octave	Python	R
Sum of each column	<code>sum(a)</code>	<code>a.sum(axis=0)</code>	<code>apply(a,2,sum)</code>
Sum of each row	<code>sum(a')</code>	<code>a.sum(axis=1)</code>	<code>apply(a,1,sum)</code>
Sum of all elements	<code>sum(sum(a))</code>	<code>a.sum()</code>	<code>sum(a)</code>
Sum along diagonal		<code>a.trace(offset=0)</code>	
Cumulative sum (columns)	<code>cumsum(a)</code>	<code>a.cumsum(axis=0)</code>	<code>apply(a,2,cumsum)</code>