

Table 1: Total execution time on  $2\times$  heap.

	G1	LXR	Shen
<i>aurora</i>	1.000	0.951 <sup>-0.936 +0.967</sup>	1.034 <sup>-1.019 +1.049</sup>
<i>batik</i>	1.000	1.008 <sup>-1.003 +1.014</sup>	0.997 <sup>-0.992 +1.002</sup>
<i>biojava</i>	1.000	0.943 <sup>-0.938 +0.948</sup>	1.637 <sup>-1.627 +1.648</sup>
<i>cassandra</i>	1.000	0.978 <sup>-0.974 +0.983</sup>	1.108 <sup>-1.102 +1.114</sup>
<i>eclipse</i>	1.000	1.028 <sup>-0.961 +1.095</sup>	1.010 <sup>-0.989 +1.032</sup>
<i>fop</i>	1.000	0.932 <sup>-0.916 +0.949</sup>	1.505 <sup>-1.464 +1.547</sup>
<i>graphchi</i>	1.000	0.918 <sup>-0.904 +0.932</sup>	1.914 <sup>-1.858 +1.969</sup>
<i>h2</i>	1.000	0.965 <sup>-0.957 +0.974</sup>	2.975 <sup>-2.950 +3.000</sup>
<i>h2o</i>	1.000	0.907 <sup>-0.894 +0.920</sup>	1.874 <sup>-1.841 +1.908</sup>
<i>jme</i>	1.000	0.998 <sup>-0.996 +0.999</sup>	1.004 <sup>-1.002 +1.005</sup>
<i>jython</i>	1.000	0.952 <sup>-0.947 +0.957</sup>	1.798 <sup>-1.776 +1.819</sup>
<i>kafka</i>	1.000	1.085 <sup>-0.925 +1.250</sup>	0.990 <sup>-0.920 +1.065</sup>
<i>luindex</i>	1.000	0.934 <sup>-0.927 +0.942</sup>	1.075 <sup>-1.065 +1.084</sup>
<i>lusearch</i>	1.000	0.724 <sup>-0.717 +0.732</sup>	11.288 <sup>-11.155 +11.422</sup>
<i>pmd</i>	1.000	0.898 <sup>-0.886 +0.910</sup>	1.734 <sup>-1.710 +1.759</sup>
<i>spring</i>	1.000	0.935 <sup>-0.927 +0.944</sup>	3.492 <sup>-3.445 +3.539</sup>
<i>sunflow</i>	1.000	0.643 <sup>-0.603 +0.685</sup>	6.878 <sup>-6.595 +7.178</sup>
<i>tomcat</i>	1.000	1.004 <sup>-0.999 +1.010</sup>	2.539 <sup>-2.513 +2.564</sup>
<i>tradebeans</i>	1.000	1.063 <sup>-1.050 +1.076</sup>	1.079 <sup>-1.065 +1.094</sup>
<i>tradesoap</i>	1.000	0.959 <sup>-0.951 +0.967</sup>	1.156 <sup>-1.142 +1.170</sup>
<i>xalan</i>	1.000	0.449 <sup>-0.446 +0.452</sup>	7.574 <sup>-7.503 +7.645</sup>
<i>zxing</i>	1.000	0.956 <sup>-0.924 +0.990</sup>	1.061 <sup>-1.029 +1.095</sup>
<i>mean</i>	1.000	0.920	2.533
<i>geomean</i>	1.000	0.906	1.843