

1014-01-504 **Anthony J. Crilly*** (t.crilly@mdx.ac.uk), The Burroughs, Hendon, NW4 4BT London, England. *Cayley's counting problems*. Preliminary report.

The mathematical reputation of Arthur Cayley (1821-95) rests primarily on his contributions to group theory, matrix algebra, invariant theory, geometry, and dynamics. Another facet of his extensive production is the attention he paid to combinatorial questions in pure mathematics. His interest in "finite analysis" and the sure-footed intuition he displayed in these researches frequently featured in his mathematical travels, and it was an aspect of his work he shared with his friends, especially James Joseph Sylvester and Thomas P. Kirkman. In this paper, instances where Cayley focused on questions of a combinatorial nature will be examined and the place "Tactic" played in his mathematics generally. (Received September 19, 2005)