UCL Department of Computer Science
CS M038/GZ06: Mobile and Cloud Computing
2011–2012, Term 2
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One-pager: RAMCloud (Ongaro *et al.,* 2011)   **Due: Start of lecture, 19th March, 2012**

Instructions: ***in your own words,*** *answer the following questions as **succinctly** as possible (in 200–500 words total, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is specifically prohibited.*

The authors state in Section 3.3 that "The probability of detecting a crashed machine in a single round of pings is about 63% for clusters with 100 or more nodes; the odds are greater than 99% that a failed server will be detected within five rounds." Using probability, give and explain the derivation of both these numbers. (In your answer, you may assume a cluster of exactly 100 nodes.)