From the corollary we learned from the course, if we pick uniformly at random a point from the unit ball, the probability that its coordinate satisfies is less than . If we want to prove the probability that such a point will be at a distance at most from the surface of such a ball is larger than , which means is less than , we can simply replace with and prove is less or equal than . let

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We get , which is approximately bigger than 31. Then we want to prove

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Which is . Because , , and . Thus . Therefore, we get

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Thus, .