 Exponential growth and rice on a chess board

Activity:

1. Recount the story of rice on a chessboard to the students: There are a range of variations:
   * [One Grain of Rice a mathematical folktale](http://jwilson.coe.uga.edu/EMT668/EMAT6680.F99/Martin/instructional%20unit/day4.exponential/excel/grainofrice.html)
   * [Exponential Growth and the Legend of Paal Payasam](http://www.singularitysymposium.com/exponential-growth.html)
2. Discussion: How much rice do your students think the Sage and Rani would have after the chessboard was filled?
3. Students draw up a table showing the number of grains of rice on each square and a further column showing the total number of grains.

| Square | Grains of rice | Total grains of rice |
| --- | --- | --- |
| 1 | 1 |  |
| 2 | 2 |  |
| 3 | 4 |  |
| 4 | … |  |
| 5 |  |  |
| 6 |  |  |

1. As a conclusion, watch the [BBC youtube video](https://www.youtube.com/watch?v=t3d0Y-JpRRg) which examines the story and the result.