

Maths4Fun Puzzle by Ken Smith

How many Grains of Sand on a chess board ?

- put 1 grain on square 1
put 2 grains on square 2
put 4 grains on square 3
put 8 grains on square 4 etc.....
Double on next square etc....

Note 8x8 = 64 squares on board



Answer

Note each Square has a Power of 2 grains on it so the Total for 64 squares is

$$= 2^{64}-1 \text{ (or 2 to power 64 then minus 1)}$$

$$= 18,000,000,000,000,000 +$$

That is over 18 million million million grains of sand.....

Did you know there is not enough sand in the Sahara desert to do this !!!!!!!!!!!

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