

Challenge # 6

We toss around numbers like million, billion and trillion like they are close in magnitude to each other. Make a guess or estimate for each of these:

If you had a million quarters, what surface could you 'cover' with a single layer of quarters?

If you had a billion quarters, what surface could you 'cover' with a single layer of quarters?

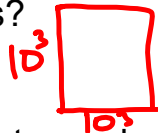
If you had a trillion quarters, what surface could you 'cover' with a single layer of quarters?

Challenge # 6 Solution

We toss around numbers like million, billion and trillion like they are close in magnitude to each other. Make a guess or estimate for each of these:

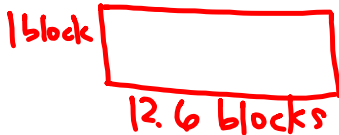
1 qtr covers about 1in x 1in square

If you had a million quarters, what surface could you 'cover' with a single layer of quarters?



about 83ft x 83ft space
(an entire ballroom)

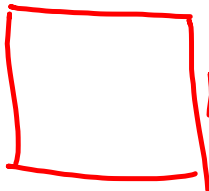
If you had a billion quarters, what surface could you 'cover' with a single layer of quarters?



full 12.6 lg. city blocks
by 1 lg city block

If you had a trillion quarters, what surface could you 'cover' with a single layer of quarters?

~ half of Salt Lake City



$\Rightarrow 15.78 \text{ mi} \times 15.78 \text{ mi}$