

Hi, I'm Greg. I'm a NYC tutor! I love helping students. I tutor many subjects, assist with homework help, etc. I mainly specialize in specialized tests.

As it turns out, I haven't been able to get to do as many livestreams as I have in past years (yet, hopefully that changes). Therefore, I thought it would be fun to start a Problem Of The Day Series. I will put up a problem and leave it running for a while. You guys will then analyze it, and come up with possible solutions and alternative solutions on your own. I'll eventually post the answer in some manner.

For now we'll play it by ear how that will happen and for how long I'll leave up a problem. But right now I'm thinking of keeping the problem up maybe 2 hours minimum and maybe even in some cases 4 or 5 hours depending upon the dynamics and my situation. Unlike my AMA (Ask Me Anything) lifestream sessions, I will not be checking in every few minutes although I may from time to time join into the discussion. Again, the idea is for you guys to discuss out the problem.

Please be respectful to each other in this endeavor and let's make this fun, educational and forward-thinking. Keep the comments within the spirit of what I'm doing here. Please email me at GregsTutoringNYC@gmail.com if needed.

HERE'S THE PROBLEM: <—  
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Oh snap! I placed a bet of \$25 thinking the profit would be the bet squared but turns out the profit on the winnings will only be the square root of the bet. What is the positive difference between the average of these two values and the range of these two values?

HERE'S THE SOLUTION:  
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If I placed a bet of \$25 thinking the profit would be the bet squared, that would be  $25 \times 25 = 625$  (know your perfect squares fluently!).

However, if the profit is the square root of the bet, that would be  $\sqrt{25} = 5$ .

The average of 625 and 5 is  $(625 + 5)/2 = 630/2 = 315$ .

The range of a set of numbers is the maximum value - minimum value. In our case the set is { 625, 5 } and thereof the range is  $625 - 5 = 620$ .

The difference of two numbers means subtraction. The positive difference is the value  $a - b$  and  $b - a$  being taken as the same in effect  $|a - b|$  is the same as  $|b - a|$ . This can be done simply by subtracting the smaller number from the larger number, in our case  $620 - 315 = 305$

305 is the answer.

- Greg / GregsTutoringNYC@gmail.com LLAP ☺