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: <———
==========

In the "IMPORTANT NOTES" section of the Practice Test in the SHSAT Handbook item (4) reads "(4) Graphs are drawn to scale. Unless stated otherwise, you can assume relationships according to appearance. For example, lines on a graph that appear to be parallel can be assumed to be parallel. This is also true for concurrent lines, straight lines, collinear points, right angles, etc."

Most students have no idea what all these terms mean :(

Go to page 262 of the 2021 SHSAT Handbook. Many students have no idea this section exists. :(

Please have a look at problem 2, it's the problem with ∠ WTL etc.

What is the total number of unique collinear points and concurrent lines in that figure?

HERE'S THE SOLUTION:
==========

Lines (or curves) are concurrent if they intersect at a single point.

Lines PS, WR, and LQ intersect at point T (their point of concurrency). So the total number of concurrent lines is 3.

Points are collinear if they line on the same line. So let's see:

* Points P, T, and S lie on line PS
* Points W, T, and R lie on line WR
* Points L, T, and Q lie on line LQ

.: That's 3 x 3 = 9 points

However, the question asks about unique points, and we counted point T 3 times

.: That's 7 unique points, even though all not on the same line

.: The answer is 3 + 7 = 10

– Greg / GregsTutoringNYC@gmail.com   LLAP ☮