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: <-_
===========-=======
A test has A questions. Answering a question right is worth $B$ points. Answering a question wrong is worth $C$ points. Not answering a question is worth D points. If a student answered E questions and got F of them correct, what was the student's score? Consider $A$ is 20, $B$ is $5, C$ is $0, D$ is 2, $E$ is 10 and $F$ is 5.

HERE'S THE SOLUTION:

There were 20 questions and 10 answered .: 10 not answered
.: 10 unanswered $\times 2=20$ points
Also, of the 10 answered got 5 correct .: got 5 wrong
.: $5 \times 5+5 \times 0=25$
.: total $=20+25=45$
In English the question "replaces to":
A test has 20 questions. Answering a question right is worth 5 points. Answering a question wrong is worth 0 points. Not answering a question is worth 2 points. If a student answered 10 questions and got 5 of them correct, what was the student's score?

Graphically we can consider a question is either correct, unanswered, or wrong along with its values:

```
    qv (question values)
    / | \
ct un wr
5 2 0
```

Graphically as well, a question is either answered or unanswered, and if it's answered it's either correct or wrong:

```
        qt (questions taken)
    / \
```

    ans unans
    / \}
ct wr

So let's add values to this second hierarchy with response counts per those categories:

```
    20qt
    / \
10ans 10unans
    / \
5ct 5wr
```

Now that we understand the taken distribution let's consider it back in the values:

## 20q

/ | \
ct un wr
$5 \quad 2 \quad 0 \quad$ (value per question type)
5105 (number within each type)
$5 \times 5+2 \times 10+0 \times 5=25+20=45$ points

- Greg / GregsTutoringNYC@gmail.com LLAP ©

