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.
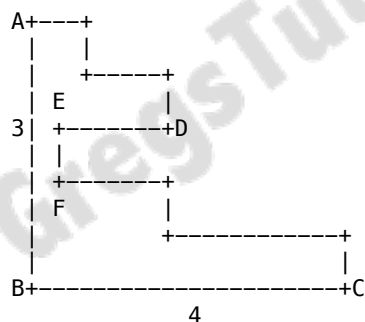
As it turns out, I haven't been able to get to do as many livestreams as I have in past years (yet, hopefully that changes). Therefore, I thought it would be fun to start a Problem Of The Day Series. I will put up a problem and leave it running for a while. You guys will then analyze it, and come up 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.

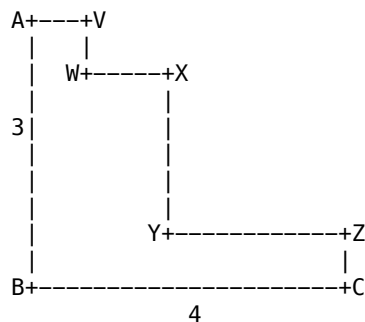HERE'S THE PROBLEM: <———
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71. In the diagram below all the angles that are shown are right angles. The length of AB = 3, BC = 4, DE = 1.5 and EF = 1. What is the perimeter of the entire figure?

```
A+---+
 |   |
 |   +-----+
 | E       |
3| +-------+D
 | |
 | +-------+
 | F       |
 |         +------------+
 |                      |
B+----------------------+C          (A) 10 (B) 11 (C) 15 (D) 17 (E) 18
            4
```

HERE'S THE SOLUTION:
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If we consider:

```
A+---+V
 |   |
 |  W+-----+X
 |         |
3|         |
 |         |
 |         |
 |         |
 |        Y+------------+Z
 |                      |
B+----------------------+C
            4
```

.: VW + XY + ZC must be 3
.: AV + WX + YZ = 4
.: This perimeter is 3 + 4 + 3 + 4 = 14

This is the same perimeter as if the shape were a rectangle, whereas the "staircase effect" has the same lengths and widths just "pushed in."

In the problem, XY is broken with the added change involving D, E and F.

However note that EF still allowing the height to stay at 3.
.: The space EF takes up is there either way whether broken off or part of XY
So even though the problems tells us that EF=1 it doesn't matter.

What does change is that we add DE, and then after going from D to E and F it has to come back to the vertical line from F, which means the line going from F back to the hypothetical XY is added then as well.

.: if DE = 1.5 we ADDED 1.5 x 2 = 3

.: 14 + 3 = 17 Choice D

— Greg / GregsTutoringNYC@gmail.com   LLAP ☮