

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

What is this? I don't always have time to do a livestream, therefore instead I thought it would be fun to do a Problem Of The Day series. In this series I will put up a problem and 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 the past this has resulted in many interesting discussions. Some questions will be easy, others hard, some perhaps with a twist, some will be SHSAT 8 oriented while some SHSAT 9 oriented.

I'll leave a problem up for about an hour, however depending upon the dynamics and complexity of the question it could be much longer. Unlike my AMA (Ask Me Anything) livestream sessions, I may not always be able to join in the discussion. Again, the idea is for you guys to discuss things out.

Please be respectful in this endeavor. Let's keep this fun, educational, and forward-thinking. Keep your comments within this spirit. If needed, feel free to email me at [GregsTutoringNYC@gmail.com](mailto:GregsTutoringNYC@gmail.com). Past questions are at <https://www.GregsTutoringNYC.com/POTD>

HERE'S THE PROBLEM: <—

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If  $e + 2f + g = 168$ , and  $0.5e = -g = 500\%f$ , then what is the value of  $f$ ?

A. 9.8 B. 24 C. -336 D. 98

HERE'S THE SOLUTION:

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% means divided by 100, therefore  $500\% = 500/100 = 5$

$$\therefore 0.5e = -g = 5f$$

$$\therefore 0.5e = 5f \therefore e = 10f \quad (e \text{ is not } 2.5f!)$$

$$\therefore -g = 5f \therefore g = -5f$$

Substituting we get

$$e + 2f + g = 168$$

$$10f + 2f - 5f = 168$$

$$7f = 168$$

$$f = 24 \quad \text{Choice B}$$

Double checking we see that:

$$0.5e = 5f \therefore 0.5e = 5(24) \therefore 0.5e = 120 \therefore e = 240$$

$$-g = 5f \therefore -g = 5(24) \therefore -g = 120 \therefore g = -120$$

Using these values in the first equation we get:

$$e + 2f + g = 168$$

$$240 + 48 - 120 = 288 - 120 = 168$$

- Greg / [GregsTutoringNYC@gmail.com](mailto:GregsTutoringNYC@gmail.com) LLAP ☺