

# The Logic Problem

*by Vorona*

In a detention with Professor Snape during her sixth year, Hermione learns an important lesson about the use of logic against Dark wizards. But will Snape learn something even more important from her? Note: There is no romance or even friendship here. It is purely teacher/student.

Many thanks to my betas, Maggie Wentz and Conn

## One Shot

*Chapter 1 of 1*

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Disclaimer: Nothing belongs to me besides the speculative plot. I am making no money from my efforts.

Hermione shivered as she approached the dungeons for her first detention ever with Professor Snape. Horror stories from Harry and Ron echoed in her mind: cauldron scrubbing, bedpan cleaning, no magic... Her heart began beating harder inside her chest. She didn't want to think about it, didn't want to remember any more of what they had endured at the hand of Professor Snape. It didn't help that she knew she deserved the detention. On the other hand, how could he expect her to be silent when he continued to ignore her presence and knew that she was right? She was *not* a dunderhead, she *had* done the readings, and her answers *were* correct. But no, just because she was a Gryffindor and a friend of Harry's, Professor Snape had refused to show her any attention whatsoever... unless she spoke out of turn, of course, which is how she had gotten herself into this predicament.

Just as she was thinking this, her eye met the door. Once more, she felt her breath get shallow. This time, however, it was combined with a sense of strength in her back. She did deserve the detention, so she'd meet it without hesitation.

She knocked quietly on his door.

"Come in."

Hermione opened the door and entered. Snape was standing at his desk, arms crossed over his chest. His eyes were hard, and his lips were pressed thinly together. From behind him, smoke rose from several cauldrons, the fumes burning her eyes and throat. For a while, he simply stared at her, increasing the tension in the air, until she felt as though she couldn't breathe. Finally, he spoke.

"Do you know why you're here, Miss Granger?"

"Yes, sir," she replied, looking down. "I interrupted you in class today."

"And why, Miss Granger, did you do that, when I have warned you time and time again to keep your abominably large mouth closed?"

Her head shot up. "You know why, Professor! I knew the answer and you continued to ignore it! None of my other teachers "

"Yes. None of your other teachers want to dissuade you of the notion that you know everything and that your answer is always right. They are all so *proud* of you that they forget that flattery and overconfidence will only get you *killed*. Now, your attitude may have been appropriate for Potions, and I may have even encouraged it in that class had you not joined forces with Potter. However, Defence Against "

"What does Harry have to do with anything, Professor?"

"Interrupting me *again*, Miss Granger? I think another detention is in order. Tomorrow, same time. Oh, and 10 more points from Gryffindor. Potter, if you had not noticed, is at the centre of a war that has been brewing under the currents for over a decade. Unless you change your mind and desert him, you are going to be at the centre of that war yourself. I thought it only right that you be prepared. Your knowledge, your books, your reason . . . these things will only get you so far. The rules of Hogwarts do not apply to the whole of the wizarding world. They certainly do not apply to the Dark Lord."

"I know that!" Hermione exclaimed.

"Do you?" Snape's voice was low and dangerous, almost a whisper. "Well, we'll see, then, shall we?"

"What do you "

"Here's a riddle for you, one so simple even Vincent Crabbe could answer it in a manner of seconds. Of course, he is a Slytherin."

Hermione's eyes lit up. She loved logic problems.

"This is the Riddle of the Four Founders. The four founders of Hogwarts, the greatest witches and wizards of their day, live on one street. Rowena Ravenclaw has a phoenix feather wand. The yellow mailbox has a wand with a dragon heartstring. Godric Gryffindor lives next to Helga Hufflepuff. The wand with the unicorn hair is owned by the Founder who lives between the seventy-one-year old and the sixty-nine-year old. The Founder who is seventy-one has a blue mailbox. Helga Hufflepuff lives furthest to the east. The red mailbox has a wand with the hair of a Veela. Salazar Slytherin lives next to Rowena Ravenclaw. The phoenix feather wand is not next to the wand with the dragon heartstring. Salazar Slytherin is sixty-five-years old. Helga Hufflepuff is sixty years old. The Founder who is sixty-nine years old has a Veela hair wand. Which Founder has a green mailbox?"

Hermione bit her lip, trying to keep all the information in her head. "May I have some parchment, Professor?" She noticed that he had a smirk on his face as he proffered her a whole roll. She glared back at the implication that she would not need any. Yes, it was probably Slytherin, if Crabbe could get it right away, but she needed to check it. After all, it might be a trick. Thus, she was highly disappointed to discover that her initial assumption had been correct.

"Salazar Slytherin has the green mailbox, Professor," she said when she was done.

"Wrong!"

Hermione looked back over her notes, trying to figure out what she had done, but Snape whisked them away from her.

"The answer, Miss Granger, is not to be found in your pathetic scribbling. The answer is: None of them."

"What?"

"None of the founders of Hogwarts would ever have owned a *mailbox*, Miss Granger, of any colour. Only Muggles have mailboxes."

"But that's . . ." She trailed off.

"Not fair, Miss Granger? Precisely. Your mind, while admittedly brilliant at reason and memorization, is rigid and closed. It operates according to a set of rules, and nothing outside those rules is accepted. As the new Defence Against the Dark Arts teacher, I hesitated to admit you into my class. However, considering your likely role in the war, the headmaster was insistent that I accept you, despite your substandard score on the O. W. L. I will admit you do need the extra help."

She could feel her eyes burn as she listened to his tirade. "Well then, I suppose I ought to be grateful, Professor. Is that what you want me to say?"

"I care nothing for your gratitude, Miss Granger. It matters not to me whether you enjoy my teaching style. Only that you learn."

Oh. Put that way, it didn't sound quite so terrible. She took a breath, and then spoke. "I do appreciate it, Professor."

"Do you, Miss Granger? Then listen well. You will have to use your mind in a new way if you are to succeed in my class. Dark wizards do not play by the rules. If they can find a way to gain an underhanded advantage, they will. Overt examples of defiance are noticed and squelched immediately. For example, if you know that your professor hates being interrupted, it is generally a good policy not to interrupt. This is the kind of subtlety you need to learn. Just because you have solved a puzzle does not mean you have the right answer. I will see you tomorrow."

Hermione turned to leave.

"Oh, and Miss Granger? I happen to know that Potter has lucked out as well. As my replacement seems to have lower standards than I do, he has been allowed to take Potions. Slughorn is ecstatic at his ability. I find that hard to believe, myself. Do you have any idea how he is doing so well?"

"I, well. . . it's his book, Professor."

"Is it not the same as yours?"

"Well, since he didn't think he'd be able to take the class, he didn't buy one, and he's been using a second-hand one. It has alternate instructions that he's been following. But, I suppose that's what you're talking about, isn't it? I've been scolding him for cheating, but he continues to do better than me, since I'm following the information in my book."

"Let me get this straight: he has been consistently getting better results with a used textbook, yet you persist in following the original instructions? Yes, Miss Granger, that is precisely what I am talking about."

"I just don't think he should be following the instructions of someone called the Half Blood Prince!" she exploded. "The last time "

"What did you just say?" Snape's black eyes bored into hers. His hand was twitching, and he moved closer.

"That book in the hands of someone like Potter..." Hermione began to back out of his office. "Miss Granger, you will encourage him *not* to use that book in any instance, not in Potions, and especially not outside of class! I happen to know that it is full of Dark magic." Snape's eyes were flashing. "If I find out that he has been using that book outside of Potions..." Snape's pause was all too clear. But, how was she going to keep Harry from using the book without mentioning that she had accidentally leaked his secret to Snape?

"Good day, Miss Granger."

