

The Scooby Gang  
1 Hanna Way  
Barbara, CA 95057  
February 8, 2002

Math 104 Students  
Wheaton College  
Norton, MA 02766

Dear Calculus Students:

My partners and I have run into a problem we can not solve. Since our reputation is built on our ability to solve problems, we need to find someone whom we can trust to not only help us out, but also to be discreet about it. Your enterprising and resourceful professor assured me that you were the people for the job.

After 30 years of acting like teenagers, my partners and I have decided it's time for us, and our private detective agency, to grow up. We've rented a funky little office, and we're renovating it to reflect our new adult personalities. We'd like to replace the cream colored carpeting left by the previous occupants – not only is it boring, but it wouldn't last long between Shaggy's sodas and Scooby's snacks.

After 30 years of operating out of a van, the costs of renting took us by surprise, and so we can not afford to spend too much. Fortunately, the absolutely groovy lime shag we've picked out happens to be cheap for some reason. It comes on rolls in three different widths: 3.75 feet wide, 3 feet wide, and 2.25 feet wide.

We'll use the same width for the entire office, but we're not sure which one to choose. For each of the three widths, we'd like to know how many square feet of carpeting we would need to order, and how much of that would end up being trimmed and wasted.

We also have the option to special order the carpeting in any width. Just because I like to be thorough, I would like to know what width I should order so that no more than 50 square feet are wasted. In fact, why don't you also tell me what width I would need to order so that no more than 30 square feet are wasted.

I am including a sketch of my office, and we would appreciate an answer by February 22 since we'd like our office to be ready for a meeting we have

scheduled for February 28th with Warner Brothers to discuss the possibility of making a movie about our various adventures.

Yours sincerely,  
Velma