Dear Calculus Student,

Well, gosh-darn it, if you aren’t the bees knees! I have to hand it to you, pardner, for figuring out that we’d had a narrow escape from that varmint, Hugh S. Carryman! We sure do owe you our thanks, and that’s no pig in a poke!

Seeing as you got us out of our little predicament last month, I thought I’d offer you a stake in our new venture. Our luck seems to have turned, and we have a new business prospect! Just about a day or two after we got your letter (most appreciated, I’m sure), we were smiled upon by fortune yet again. Out of the blue, we got a letter from a new client, a multi-millionaire recluse named Dee Seevers, who owns a little island off of the coast of the Republic of Guinea.

Ms. Seevers writes that her fabulously wealthy lifestyle living on her tropical paradise of an island is all that she could ever hope for, except that she misses two things: quinoa and her favorite garlic sauce from her home town of Provence (the sauce is called “aioli”). Well, as luck would have it, we happen to have 30 large jars of aioli, and of course we’re rolling in quinoa! So now we want to get in her good graces by flying as much of our quinoa out to her as we can, and quickly!

Problem is, Ms. Dee Seevers specifically says she despises quinoa in bags; she wants it in boxes. And Barley bay is famous for many things, but we’re not big on boxes.

Well, it just so happens that we lucked out and came across 73 large sheets of cardboard, all them the same size: 15 inches wide by 25 inches long. And my partner, Roger Over, reckoned we could make our own boxes out of these pieces of cardboard by cutting and gluing them. He made this diagram for me.

![Diagram](image)

The dark rectangles are the parts of the cardboard he’d cut away, and the light parts are the parts...
he’d keep. He’d fold these along the dotted lines to make four sides, a bottom, a top, and a flap to fold over and glue the top to the front of the box. (He figures he’d need the flap to be 1 inch wide to keep the quinoa from spilling all over the airplane).

Well, this looked pretty good to me, except that that there box looks a little fat and shallow. I reckoned if we cut the box differently, we could make it taller—that ought to hold more quinoa (which, in turn means, we’d get more money from our fabulously wealthy new client). I drew Roger a diagram like this one.

![Diagram of box with labels for bottom and top](image)

Seems to me this taller box could hold even more quinoa. But Roger said it’s too skinny, and so it would hold less. We argued about this back and forth, thunder and tarnation, to the point that neither of us knew what side was up anymore. Then we remembered how you helped us out of a jam with the last problem, and we decided we ought to ask you for your considered advice.

So, math pardner, what’s the best way to slice up our cardboard (leaving that flap that Roger designed)? We promised we’d fly out of here on or before October 31; if you can convince us that your design is best by then, we’ll gladly give you a cut (heh) of the profits. And then we can carry our quinoa and aioli to an isle off of Guinea, and earn ourselves a huge wad of dough from Ms. Dee Seever!

As always
Mighty obliged,

_Rhoda Way_

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