

### Problem 1 Part A:

BARBARA SHREVE: I'm so proud of you, and thank you so much for being willing to do this because I get to be here with you guys and watch how hard you're working every day. And I'm excited about what we've accomplished this year as a group, and I'm looking forward to seeing what we still do in our last weeks together. Okay? So should we get back into some math? Good! You're going to need a clear, clear space. You can leave your notebook off to the side. If your backpack's on the table, will you clear it because you're going to need to be able to work together with the person next to you.

All right, are we ready? Okay. On Wednesday, we were working together and looking together at some problems about quadratics where you guys had some amazing conversations in your teams about what – and how to start different problems. So if you remember, I was taking notes on what you were saying. And some of the things that I saw that really helped you guys, were I saw you sticking together, I saw people asking questions and thinking "Oh, I can look back in my notebook to find information about that." At table 2, I heard people having really specific step-by-step discussions where they kind of gave a couple of steps, and gave people time to think, and then went back and did some more explaining. I heard people not just having questions themselves but checking with everybody, and then calling me over for questions, so that everybody together was kind of stuck in the same place and you really had a chance to think about something before you went for extra help. But I also saw you guys reaching across the table, putting ideas in the middle of the table even when you weren't quite sure yet. And that's the kind of thing we want to work on today. So today, some of those things that you were thinking about on Wednesday, we're going to look at really carefully. We're going to look at, first of all when you get all these directions about quadratic equations, where do you start? So on your table there's this piece of upside-down paper. Will you get to where you and the person next to you can see it? So you should only need like two because we're not doing a lot of writing on it but you can absolutely have another one. Here you go. Okay, does everybody have one they can see?

So I have geometry students in other years, right? I don't have them this year, but one of the things I notice a lot is that when they go back to work on these quadratics, they forget sometimes how to start. So they had this problem like the ones you've been seeing, solve for  $x$ , where the equation is  $2x^2 - 14x + 20 = 0$ . And three different people started that in different ways, and you can see that. I'm going to give you two minutes as a table to decide who is correct. So look at those three ways to start and you don't have to finish the problem, but whose first step makes sense? Okay? I already see table 6 leaning in to talk. Can you guys talk together, and in two minutes I'm going to ask you to decide as a table who is correct.

STUDENT: Hold on.

STUDENT: This is  $a$ ,  $b$ , and  $c$  is 20 but...

STUDENT: Okay, that's right.

STUDENT: That's right and that's right.

STUDENT: Yeah, this is right.

STUDENT: This one?

STUDENT: Yeah.

STUDENT: Dulce, get me the list that's right here.

STUDENT: This one?

STUDENT: Mm-hmm, but why do they give you all of the things correct?

STUDENT: Yes, but we need to find the value only of  $x$  [inaudible].

STUDENT: If we do this one, it's going to be like different answers. And if we do this one...

STUDENT: This is right?

STUDENT: Yeah. Because that's how it started off with.

STUDENT: Okay.