

00:00 Steps per second.  
00:03 And if I use a seconds per step, Alex wins.  
00:10 Seconds per step. Alex wins.  
00:18 So that people will have numbers to work with were you working with these numbers right here?  
00:23 Yeah.  
00:24 O.K. Two minutes. Talk about her conjecture. Talk about what she believes is true.  
00:32 Write down this on your paper. What is the steps per second. What is the seconds per step. Where did she get this idea from?  
00:45 I know you want to share out right now. Talk about it.  
00:49 Twenty seconds per step then you would be really slow but if you had more steps per second, then you would go faster.  
00:57 Because if you had twenty steps in one second, then you would be like way faster.  
01:05 I don't really disagree but I thought that Joe wins and that Sarah wins because I multiplied what Sarah got by two.  
01:21 So twenty seconds times two is forty seconds and thirty-two steps times two is sixty-four seconds.  
01:29 And then with Joe I did ten times for to get to forty seconds. So you had to do sixteen steps times four to get to sixty-four steps so they equaled the same.  
01:45 O.K. Alex what did you do?  
01:48 Well, the steps per second and the seconds per steps isn't any different  
01:56 because for steps per second you are quantifying how many steps you can take per second and for the seconds per step  
02:06 you are trying to see how many seconds for one step.  
02:11 So if you had a higher seconds per step would you be faster or slower?  
02:17 You'd be the same.  
02:18 No you'd be slower.  
02:19 You'd be the same because you're just switching around.  
02:22 O.K. if you had twenty seconds per step then you'd...it would take twenty seconds to take one step.  
02:30 If you had twenty steps per second it would be one second and you would walk twenty steps.  
02:39 Yeah.  
02:44 Don't you think.. do you still think it's the same?  
02:48 Yeah if you turn it around. It would take you twenty steps for one second.  
02:55 So Carlos what did you get? I already shared. What did you get? I'm just curious.  
03:01 Well, how Michael was saying if you get the twenty seconds per step...  
03:08 All Right. Let's share this out. Obviously people had ideas right away. Right away. So anybody like to share? Anyone? No one at all?  
03:21 All right, let's start with Michael. Go ahead.  
03:24 I think you wouldn't want to have higher seconds per step because if you had twenty seconds per step then it will take you twenty seconds to go one step.  
03:37 But if you had...  
03:38 Hold on. Hold on.  
03:40 Mikey, stand up and show us what twenty seconds per step would look like.  
03:56 Would you agree that is close to twenty seconds per step? Aiden, stand up in the back and show us what...  
04:03 Twenty steps per second.  
04:04 Thank you.  
04:11 Twenty steps per second.  
04:18 Pretty good. Pretty good. All right.  
04:28 Hold on for a second. Go ahead Michael.  
04:32 And it would be better to have, if you are in a race, twenty steps per second because you would, obviously, go a lot faster

04:40 and...a lot faster than twenty seconds per step.

04:45 O.K., O.K. What do you think was the confusion here? Aiden?

05:01 I think the confusion was with the idea of if you switch it around it's one hundred percent different.

05:15 I think that was the confusion.

05:18 I'm not sure I understand. How many of you would like Aiden to explain it in a different way? O.K. Try again.

05:25 Well, with the idea if you switch it around the goals become different. I think that was what was confusing.

05:40 I agree with you. I think that's...yeah. Did you want to add something to it.

05:43 No I had something for steps per second.

05:46 O.K. Go ahead.

05:48 Well, I think that Joe didn't just win. That Sarah did too because, what I did was...

05:56 For Joe I did ten...no...for Sarah I did twenty times four...I mean, twenty times two to get forty seconds.

06:10 So Sarah was thirty-two steps in twenty seconds. Uh-huh, and then what did you do?

06:18 And I times twenty seconds times two to get forty seconds. So I had to do the same with thirty-two steps.

06:27 Thirty-two steps times two and I got sixty-four. So it was sixty-four steps in forty seconds.

06:36 So for Joe I did the same. I did ten seconds times four to get forty seconds. So I had to do the same for sixteen steps. Sixteen times four is sixty-four.

06:59 All right. Go ahead.

07:04 So then I did sixteen steps times four and that got me sixty-four. They each had sixty-four steps in forty seconds.

07:22 O.K. So Sarah and Joe are equal. Is this what you are saying? That's a nice comparison. O.K.