

JACOB DISSTON: Here's what I want to do, I wanna...what we've just done, we just sort of hit on the 3 big differences among all these things; these symbol strings. So, I actually want to start the next part by kinda calling these out. They are what Derrick said, equations, what Noah said expressions and inequalities. Here's what I want you guys to do. I want you to go back to your table, grab your name tag and if you are holding an equation I want you to sit at 1 of these 2 tables. If you are holding an expression, sorry an inequality, I want you to sit at 1 of these 2 tables. And expressions I want you to sit over here. What I want you to do is just put your orange cards into a pile on your desk; I'm going to collect those. What I'm going to give your group is the set of all the cards, so I'm going to ask all you guys to start in your table group by separating them and talking to each other about how you know how to separate them into equations, expressions and inequalities. So, you are going to take all these cards, you're going to lay them all out and make sure they don't look like this when you lay them all out. If it looks like this, what do you do? You turn it over and then you see something on it and then you decide is it an expression, an inequality or an equation and you decide on that by talking about it, by saying to somebody, "I know this is an equation because..." So it's kinda like this...I want to hear the "I think, what do you think" type of language. I want to hear you guys say "I think this is an equation because" and I want you to sort them together okay? If it is 3 people sorting them independently it's not happening the way I want it to, so make sure you are talking. Start by laying them all out.

STUDENT: First we should separate them in to groups like the properties then the inequalities.

JACOB DISSTON: No, we're looking for equations, expressions, and inequalities.

STUDENT: All right, who's going to do expressions?

STUDENT: What are these?

STUDENT: Inequalities.

STUDENT: Ok, I'm thinking... (inaudible)

STUDENT: I'll do the equations.

STUDENT: These are inequalities.

STUDENT: I'll take the inequalities. I got it, I got it. Inequalities, inequalities...

STUDENT: This would be an expression right?

STUDENT: So what is this? What do you think this one is?

STUDENT: Let me see. Yeah, that's an inequality.

STUDENT: Ok that's it.

STUDENT: So we have... I have equations, you have expressions and you have inequalities.

STUDENT: Two of them have equal signs, we know that right? So the ones that have equal signs we put them underneath each other. The ones that have equal signs; they're equations so we put them together. Except for if you have ones like this, that's not an equation, that's an expression. So like the ones that say $3P$ is... so like that we can put them together. Do you need some help?

STUDENT: How is this an equation?

STUDENT: It's an equal sign.

STUDENT: Yeah but it doesn't have what the others have.

STUDENT: No, but you do multiplication because it's $5x$. It's like 5 times x .

STUDENT: And this one right? Yeah, that's an equation.

JACOB DISSTON: All right, so you got to decide, how do you tell equations from expressions, how do you tell inequalities?

STUDENT: I guess this one is too.

STUDENT: No, I doubt it.

STUDENT: Because it has an equal sign.

STUDENT: Yeah but it looks the same as this one.

STUDENT: Then what would it be if it's not an equation?

STUDENT: I guess it would be an equation, I'm not positive but yeah, all right.

STUDENT: What do you think of $y=2$? It's like not really an equation.

STUDENT: First we just sort it out and then with the ones we don't know about then... STUDENT:

What about f times $1=n$?

STUDENT: I'm not pretty sure because it doesn't show this...what the others show. Ok next inequalities. That will be all these signs right?

STUDENT: Yeah, pretty much would be everything else.

STUDENT: No, not really cause we still have the others to sort out. Oh, this has to be an expression and this?

STUDENT: That one I think is an equation.

STUDENT: It can't be an expression so, yeah I'm pretty sure...probably, probably, we don't know what yet. What about this one, oh yeah this one is definitely.

STUDENT: Is that one an equation?

STUDENT: No, not really, it's like an answer. Just leave this out and figure out this later. STUDENT: Here's an equation.

STUDENT: What about these? We also have these to sort out, the numbers.

STUDENT: I think they're equations because they have equal signs although it's just like... STUDENT: I really think this is an equation

STUDENT: Yeah, but it's kind of confusing because they're actually...

STUDENT: They have letters but there's also equal signs