How does the? Like this series. Which was. I've been looking into something. There's no third lecture. In the second, the 1st and 2nd which is we have seen the victim and what's the meaning of opposing victim? Which. The point that. That's the information we obtain this equation for light,

So be calling back the equation of the line. Of course we are going to study the equation of the line. But here there may be the condition, but here we are going to see only the. So we call it quickly like which number?

So that's what we are. Thanks

So much. We are going to see that the important topic on this level products the product of 2 entities. What is the meaning of that skill? What are the properties of these products? Using that, we have some important identities. No, that is not the topic. So that is different. Hey Cortana. That's the. What do you mean by? Let's get a product of the year.

So it is also called. This product is also called. This year how do I understand that skill? No, for that what I do is I just rewrite this. Let us take this. And didn't know where he has to take that. Obviously. Let's let me call this angle Theta. Could be. So obviously the zero of the data lies between zero and. We always choose the. Just the data value. Data between. The seller product is defined as. It is different this they call an equal. What we mean is is different. Right? We are not. If one of them is 0, then this kind of product will be. Marty would be. Then they give.

So that we can choose. Because of the. No.

So this is obviously so. This is the definition of the scalar.

So basically because it plays a number between minus one and this one, and this is a positive. One of the zero, obviously 0. It is always

So that can be negative and there's a negative real number, or it can be positive real number. The value of. If this does not as well as it is acute, this would be possible. If it is greater than likely that it is zero is greater than 90 degrees than it is.

So whenever you have B is negatively immediately controlled that there were just affect the CPI. Positive, then we can conclude that there are ALP are making.

So this is the commercial product. What does it mean that we will see that because that there is immediate properties? Property is used up. Whether we write the first PC or first period doesn't matter.

So what I need to say is the same as. Because it's the first of three numbers. Therefore, here are basically. One of them is 0. 0. Thank you, don't be. #3 immediately BC. The Congress is not. Here are B. Then we can, that is you. Theta equal to five by two. And did I say anything? You know so. You know? Zero because cost 90 zero. Therefore whatever may be their lives of AB. Thank you, that will be the reference. Where are these? I mean this case

So that we are not. What it means is here. In that case, the degree. Get out. Then there are these. This case yeah. Is the particular. Feeling. Let me just say there is one more thing. Important property by looking at the definition, suppose it is equally. 8. What is the definition? With his body. Square. I don't disagree between the same vector. It is saying that because zero is called the force.

So you guys are. Alright. You don't. If I take the square then it is simply. Other.

So if they want to find the immediate, they can take that product and then take this. Take the positive

So that. Let's take this. Take this example. If the body is equal to. 6. That would be 7. Data is equal to 60 degree. The data. Is equal to 16 to 7. It's Maria. 60 + 60 is also improved therefore. Sir, what is multiple 31 is that? This. What about this? And also note that. Would you be there? Because they know that you already I. Exactly in the positive direction of the sexes. Police detective I don't I. Using this model is equal to 1 because it's the unit vector mod I is equal to 1. Therefore it is simply. Because they. Similarly. Different vectors. 00 also.

So with all the data. Easy.

So I can take it. And some other properties of. They're going to see it. No. Yeah, let me consider. Me. Is it? Me. It cost. The prediction. See if I don't like this body. I just said it. Therefore cost data. Is equipment. Because this point is this. Yeah, and then this. They call this point. Ohh yeah. Because our cost data is equal. That's exactly what you're doing. Really. Look at this. Maria Costa this is equal. Do you consider this left? The volume is equal to the distance. That is, the protection of the vector following the we are missing. On

So therefore it is. Like this? Small beat types. The. Not at the boy.
So this is the protection of. All.
So here are basically the what we times the length of.
So therefore it is you can only say that. Being this is the number multiplied by the length of the prediction. Of the year. They tell me. The. Are you sick? Here. What do you want? What do you? Yeah. Like multiply this with the equipment in this direction. What is the university in this direction BYR? Might be. That this quantity that is this is the number. Here is the number that multiply by this PT by 1. The whole thing becomes effective. OK, nothing becomes. But this. Prediction. Is this for the prescription? If I wrote this? For the protection. OK. Hello.
So this, but there are some properties that received support properties. Very big.
So let's start saving for their purpose. Jada just how we deal with the mother. Head out. Breakfast.
So I'm taking the traditional BC. This is famous. As you say. Hey dot, take this summer. You know people season because I'm taking I'm taking the dot product. Website is the number at the right number. I just say this property for convenience, safety. Let me give the replace the vectors like this. Let's say this is my. Be like this. This is. Ravi
So let me call. Select that, say. Now I'm picking the left hand side.
So you end up with the same. You know? Like definition equal to the length of the. OK. Multiplied by. That's what we have seen in our productivity on the dot product. Protection of. People say. Other. No, this is by definition it is equal to. Play. The business. What is it like on the project? Be what? Quality. We would. There will be one can be written as O, A1 plus A1. Quality. What great way? Oh yeah. Quality. What? Morning. This is the. The protection of the people. Multiplied. Audio. But it's not, see. Welcome to the.
So this. What? The first
So therefore it satisfies. That this is. Frequencies. Data. The same way we can. Skip. There are four. You have to speak in simplest. This is same as it is equal to π definition. You know? C plus. Plus B dot. See. This speed already by the previous property is C dot C. The speed of the sea. It doesn't matter. You don't see that. See. You know, but the the model is subjective. It is equal to this agent, right? Body is. Body is equal to square dot the dot product. Let's that product is the same. This is equal to. It's always there. Previously it is equal to the CCI. B&B 2nd.
So that I can write this, this situation becomes what is that? This mod B. Plus do you see that? The data is there with the data. It is two types. Property. Well, they said the next one the 4th. Plus the. Frequency across me. It is simply. You can verify that it is about his work. Types. Some key things. By definition. From the description it follows that I can take the key out three times. Already have the same. Just leave by the property. While this year. Another because we know that our definition of. Well our dear mark. That will cost Theta is equal to. If we know that. Then we can find that these are between the houses between them, given what is cause Theta is equal to 8 or. The diameter is small. Void it. In the case I can find that. We're going to see. That is, data is equal to.
So this is this is famous here OK? OK.
So we assume that none of the vectors. No. With this property singlet us find a simple formula formula to find. Because they are saying that. Like
So in those like the ordinate system. We can for example consider this. Let me just explain this in the loaded divergent with the plane and then we can move on with this space. That's it. Which is, let's say, what. I love the piece. We would like we do. That are making the duplicate. Is it? Yeah. One night
So this is equal to. By the property, whatever we have seen in the previous. Set of properties. Please see what is simply what I. We're going to. Dot product. Plus hopeless. Not protecting the people, right? Spelling this. This is simply because. Data is equal to what, therefore is simply we can only hear what? Type something in this sentence. They will become. Skip this. Yet. You 1010. So. Quickly see. The component of the some of the products of the components.
So with the computing components have multiple K1V 1A2 B 2. Similarly. This is given for example. Pretty like that. You were right. People. The same thing. Competency multiply. Let's see.
So it's easy to quit the doctor. It's simply they won't be able to see it. No, we just see this that we take this simple request. By just 3 - 2. I need to be. Eight day. Plus

16. I want to be happy. That's about that. Voters of the corresponding conference. 40 minus 26. Minus 4. Favorite? That's it. 37 - 2. What? Alright. It's big. Wait, wait. You know the body as well. Is equal to. Here are, you know. CNBC? By the right. Do you know the meaning?

So both are same.

So you can verify this. What is that? This will be. Says about problems. These are the properties that we see. Let's take the into the. 2003 why minus? Through that please. Product data there is no. Please see. Let us take. They might have. Latest. White. Just like that. The formula. Data on me. Student by party. But this. Under the Disturber scalar product and this is an ordinary product product. Pieces it's certainly important. Product this is the difference. Quite. Doing it by. Spider 3 poppies. There is. Yes. What? Since. I think that this. Despite the unit. Minutes. Why did the skin? We I. The greatest. We are interested in finding the unit vector 5. Right? They're just. The new vector. That is called the. Everybody, everyone. If you want to know what the heck. And then the same thing. What we have is this. It is a given that the other person, that particular to both the and therefore we made our case would be equal to 0 and B are equal to 0. Therefore we have the immediate. And to be done. What we have is. It's. Right? Wait? This. This morning and the other. The store. Request

So from this equation

So equations they are closed

So they can resolve by the. Excess proportionately. 1 minus. What is minus 3? Is proportional. Listening.

So this. My height. Squeezing you make all this. They exist. Latest data. That is

So what we want to see. That'll be have the. Right? That is

So here it is. Minus three I. This way. This. Because this Lambda, if I write the X, is equal to. This is equal to minus three. Lambda is equal to. Plus that. This is a question. No really, that has said things that publication of this. Let us say that. Forces. Party. And of course. Yep. Because of the enforcer, I think that the. This place to another point. That's quite particularly particularly moving from the party. Application of this.

So yes, this is a perspective. And maybe. Is the displacement. The body is. No, when the forces are playing. And there was a particular host of the party. It might be there is a force that force. What's this equal to the force dark displacement might have said it is. Is that the difference? For example.

So if I know the force vector and then displacement then that product is there. Simple example. I see that there are two forces. It's that. Two forces are acting on the given point. Like given particle particle. Like 2 points.

So either. We're doing this here for you. Two forces force vectors. Newly. Norway has. There is another victory too. There's three. It is no deal. The party. Displaced displacement $25. Let's say the fight. Iplus 3 - 1. 4. Right? What we have to do is you have to find the. That force that is equal to the sum of these letters.

So which is equal to four I. Why? Why? Brightest day.

So they said. But the displacement vector displacement. 4 - 8 - I - J. But his latest. That's all. Play this latest one, this one. Yeah. The street,

So I don't know what the force said that that was discussed. Yes, done. I think that that product. What is? It's that easy. A sport like this three, which is equal. 1660 business what is force? We have seen some properties. Problem. It's very important. 36 yes. And we are. This is this is called the parallelogram. Graves what is? Because you know this. This is me. The characters. Some of the. The squares are the length of the diagonal is equal to what is the sum of the squares are saying something. This is called. The body of this property. This is easy to do because A+B whole square you know the plus B good square for the product. We can write this. What is?

So by. This building this this week that already we have seen this is equal to R ^2. A small piece square. Plus two things. Similarly, I can write a - B square. This is equal to mod a square. But B square. Minus two types here.

So that 45 summit.

So therefore I would have that safety comes. Simply, Marty is correct. First place. This is what we want.

So say everybody. Places like this identity is small. Until you Marty is equal to. The. You won't be able to. You modifier plus five know the model that is the size of the panel. Three and four, and I know what that is equal to 1. What is the other? The

previous identity what? Yes. Right? :) face audio. Minus 149 the first of which is equal to 7. In this lecture. Equalities. Anyway. Equality is what is called a swap. Silly quality. And the other one is that. Inequality is very simple, it is. It is the definition of that. Say if I have a dot product. We equal to model the sub three model of sub. Now if I did the, we know that the cost is the value lies between the minus one and plus one. Therefore, if I take the modulus of that. Are equal to party. Was there really any quality? Model. Replace the equation by this inequality.

So that's what this question. It's called the. This. Things like this. Because. Modulus of data.

So I was thinking. It's called the triangulating quality, it is. There is a. Places that. Like 5 people. Wait? It was. Wait? Just see what happens. That's what it said. It's closed in quality. Let's take a two vectors A&B. Models. Which is equal to. Definition of the other night. Data. Please. Bodies. Let's see what we have. Me. Ready for the same price? I can upgrade all the previous ones. I'm thinking. This would be. What is what? Let's buddy. Modernism. What we have is. It was me. Always shorter than the morning. Body. I think this is Thomas. Bring this. Equally different. Equality holds. This quality course. It is your. Moderates are here plus B. Is equal to models of plus models of. That what happens is. CBCB what is in this body is is equal to body representing. What you see? What is? Just. Let me see. This is very good. Is equal to the. What it means is simply. Are they gonna say so? They say hey, we see. That's the point. But since the rules say this. What we are looking for. Three waterproof to the three points are simply we have to prove the equality. I'm sure you have learned a great deal about the product. See the properties. You'll see some important identities like. This was inequality and inequality and some more properties we have seen while in the next class we will see the other product for the product. I think the set of products for the product is. All that we received.