

Once again, welcome. Like that series. Little bit. See what this problem is. Some days it's. Minus. Minus. Stop. Minus. This relation is satisfied. It's serious. Why it is so seamlessly? Sir, please. Formulation. This expression doesn't contain at all. These relations are different. On both the sides.

So if I apply the function, you talk on the right hand side. I know talk. Face off. You see what you see? When you buy, apply the function of. This block to some place. Just please. Six sisters presentation of the piece. Basically. Drop the displacement of this particular expression. Seamless this it's equal to. Despite. This particular thing is of the form. Could you please? On

So you get that extended multiplication along. This. Seriously? Why it is perceived? Stop. It doesn't matter whether or not it is some representation. This is equal to 0. So this is this is. No. This expression is valid and therefore I can use a power law. Dog. This increase is equal to. Is. Use the power off. Plus C plus. See for this. Right? No, we just we cannot use this expression as it is. But what I can do is they can use the power of resource and say that if all these resources are equal equal to some of the law. You want to see now I'm taking the. That means what? All these things. All things will be so. If I want to take a long while. Will be equal. Things. See my. Can I substitute this or the expression features simplified? This saves. It doesn't matter, this is just the representative. I can put any.

So tell me if I can do that then I will substitute these values. Please.

So what will you do? Put these.

So that will be minus 2. Steve  $3 - 8$ . We should say. What does this mean? We already know this. Minus  $6^2 + C^2 - a^2 + B^2$  minus  $3^2$ . Seal you cannot make you know because it's a ratio of something is not zero.

So now. If at all, this has to be this research, this particular sound should be 0. So am I getting this piece square? 6 square with the negative C square. A square with square. Getting is. Which is. Therefore, I have sold that. This relation is satisfied. These notes and equate to. Forward. Please. Thank you. 6. Off ABC. Equal to. 21 I will put this to be equality. These seriously. Is equal to. Start for you. Everything. It's quite easy equal to. My day was great. Still busy. My team must be is one way. Series  $2\pi$  is equal to. He was 32155. Wants to be. 6.

So once I have this transformation by you subscribing to all the values. What are the different side of different flow inspirations? 20 please. First, the expression. Being will be equal to. Substitute quality which is clear is 21 by 6. It is too hot. Beast. It is to one way. This is equal. Six half. I think this. 1621 thirty one. According to our power law, this would be equal to 31 by 30. Talk. You're basically 6. It may be difficult. I have one that would allow not used

So far. Getting the first opportunity to discuss these things. Basically say if I have two expressions. Belong to the base of the. Then I will put the argument. This. News. Never take any common piece 6.

So I can use this change of pace. I tried to simplify this expression

So it's 31 by 30. The team don't be so. Dog. OK. 26 Now the base is at my hand. I can choose any.

So it's. He is. Then, like inflation will be OK.

So what what will happen to the team? 1 by 30? What is the log of a digital scale? It's a power law,

So one by six will be thrown out.

So 1 by 6. The log of it. The debate speed. Everything

So then it is 31 or 36. Because this is 1,

So it will be  $1/6/20$ .

So this is this must be equal to 41.5. Yes. Is the 1st. Now let us go ahead and solve some more problems which will require a change of pace. Problem solving this problem would be. 17 problem. Understand it from the perspective change. Of course it will be easy. You are not able to understand from the change change of perspective. In fact, this is a very easy question. 2/5 both be scared of common. Both of these are common ways. What will this be? Are you in danger? Inverted. Alright. City face why this? What will this be?

So I can talk. That one should be that. You don't have to change. Now let us try to evaluate. Which is complicated. Using. That's the law. Something. The expression. First of all, I will use the power lock and simplify the expression. I have product of the logs, not the log of the product,

So I cannot use multiplication, but I can use. It was my first try. Civilized. Of the human race. Upon the database. It is. 41 This if I use power loss separately for each of the long term, what will this year? Do you play? More. All these are coefficients now. See. Debates these things. The decrease. Would you use? You didn't get the qualifications. Unique. Hello. Base. You think? The only answer is this.

So my guess would be equal to.

So this will be equal to. This is some days. All of the.

So easy. Which is equal. Problems. And. I have long. 6-7 talk upon. Talk. What is this long longest log of? Another way is. You can actually start with. Surprisingly fine. Dog. See the office. What basically you use will be dictated by what song you have in the original set,

So you use this lock. We have almost solved the problem because I know. 70 degrees remain unchanged.

So what I need to resolve is support how log of 6 to the base 2. 63 into 2. Dogs. Space. Therefore. Decrease 2 the decrease. Which is equal to. Right? Deliveries 2 is 1. More problems and they are just on the phone. Why is he going? Some of you saw this coming. If you see the pipeline. Six tools are twelve 638. 63 eighteen 6 hours and 24

So there is some pattern that is. If there is such a pattern, then definitely I have to use some change of my formulation. Is now trying to resolve this problem by taking the trip. To start with. Electricity. Starting with one plus. Equation.

So we have to. Give me one. What is tips? 6. What is point? You will rewrite this using this formula. Six, I don't care about the job of 12. Whatever may be the best. All you need. This must be equal to 1 plus. 6. Now reduce this to 1 plus. Face off. 6. If I want to simplify this further, I will use the power of. What is that? Since I have a base 94 years and the rate as strong. This. 24 of 6. 6. This would be. 144 The other party. Lock it was long. Talk. Please. OK, see your face. The dog. I'm getting the same thing. This will be. Right? This is the impact. Base 20 exist. This is important images. Therefore I approve this. Part of the problem. OK. Dog Dog database PC or a PC. This card one will be. The device. Voice says. First thing you. You will see the quantity the argument ABC. See for all all. Basis. Do I have anything which will save the bases are sealed? Do I have any? And relays to change because the only formula is change your face for So long. Change of base formula says it's dark. Rupees? Feet. Off no. What I want in this case is 5 basis. My arguments would be the base base should be the argument.

So how will I do that?

So I want my base to be the argument which is done here. This particular thing, which is the argument. If I want to remove this post. Surface be equal to. If it is so, then what will this become? This will become one because log to the base of a phase one. Talk.

So what I have here is to block the details of. This equal to. The difference being of things,

So it's a switch in the face.

So this is the problem.

So I can use the power of this law. Very important groups and getting. You can use the power of this lock scripts the baseto the argument and argument to the base.

So what will happen to the first term if I want to use this power? Religious religious. Will not.

So what will be the? Shaw BBC to the police will become law. To the base they will see. Similarly. You can use the similar qualities that will be log of PC interface in your PC. Plus DC. The device EB. What I'm doing is I'm using this. This change of pace. One upon something. It is clear that what I have is. And since now the bases are seen, it didn't use my multiplication long applicata answer,

So its log. Talk pretty busy BCABC. You see? Which is equal to. Give me. BC. Please please please please. Power off. See. This is a powerful demonstration. I have been given. The same thing. Another demonstration. 1. City base. Why is he?

So that. Voice. If you look at the pattern. The change of face problems are coming. Cycling order is during the phase with PC. System to circumvent this entire problem involves only these three ABC. If you get any problem with this part of the job. If you look at this problem in this problem, if you just feeding the values of X to Y. This expression. It will become easy,

So before trying before attempting to solve this problem, let us simplify what is to show So this is. 5 divided by. Assuming the claim there. This is equal to. My ex wife. Both sides and this is equal to 1. Yes. Precise I'm dividing by XYXYZ. Settings. On

exploration. The right hand side will be XYZ is equal to 1. This is also incorrect. Explained it. Yes. Why is it getting cancer? Right? This is the case that I need to find my keys. These expressions. So I want to simplify these expressions. How can I simplify these expressions? I've been using the power of. Appropriate basis. What is missing here is what is missing here is. Here is. So I can. This place, using the power of 1. One is equal to dog of a base. The base. But this may be long. As long. All these things. CC. 50 piece So we live here. This. Stop. Which is equal. I have the expression of this. So what does this mean? So if I substitute the values of XY&Z here. These values. Let's see what I get. Substituting the values of the substitute. One upon that you may see. Yes. Thanks. In this. Yes. Space. And your face. You single. So what we got here is that this should be equal to. Is the same problem that we had in the earlier. Question. We have something. There's a similar problem. Support. The argument with the base. Again, the change of the deduction that happened in the last four will give me. This is log base ABC. Did you face? Yes. Please. This is equal to 1. Thank you again. You know? Would you please? CBC, which will be naturally occurring. And their daughter is equal to 1. Or something? Introduce this with this. I substituted the values of Excel So I should have taken the images here, which would not have written this. So this is equal to this. There are both. It is equal. Worked. Which is equal to. 30s. Let us try to solve the problem. Let us take the 14th problem of today. Talk. Basically of lex. This is quite often. You excuse? Things. Is equal to. Basically. So we need for a small corollary of our personal problems first. You have to understand that this is not part of the problem, So I can use a different color. Sweet. What we are actually handling is a problem of this spot along the base of the area study. Peter all knobs are properly different. I want to express this in terms of law to the basically open. How will I do that? But from our power. You can use a power by now. This particular expression is contained, but. Is it is too? Hope you find this then I also know something how I will switch space. Argument will be the place. So that also I have that long. So what I will do is I will keep. For this one. The debate is being both. This may help. This is also in fact equality than using the same power knowing the denominator. Morning. Things were not. Dog. The deep base of a. But I don't like logging the new, So what I can do is I can do this by block. To keep pace. Both. Switching sides. The face and paste. If I can do this, then I understand. Which is. The debate is to. Is equal to. That is the target. I use this in our existing programs. I. So long the base of X is not a problem. After you use this open world, this log ticket base please square square. So in this problem I am asking a question. 8 degrees 80 student student is equal to 40. So if you look at this carefully and you look at this formula carefully, I'm just replacing my by and B by X and if I apply this formula then this should be equal to two. Dog. Basically things. Which is equal to longevity, basically operates, and this is true for all. Therefore, if I look at my problem. Long PDF's. What I'm actually saying is. Slightly. Telling you. These things +3. It's all things. What should this be called? This is equal. Follow it on this one. One plus. Dog. Things. This song. Appearing patents. Therefore. Observe that this question is going to be. Things. Which is the. Starting with. Just. Used it using this formula. This. I got off on this complicated expression equal to some similar term. There's the power of knowledge, So let us summarize today's class. We started with problem #6 in which we have actually demonstrated how change of these properties. Can help you in solving the problems after solving these problems we went on to the civil problem in that. So what we did is, we assume this to be equal to some constant number and use the property which is a special case of change of base property. Derived that property. In fact, we have solved the problem. Problem this was a very tricky and there only change of pace was used and it actually reduced to the number zero in the ninth problem. We have some absurd, some absurd logarithmic expression multiplied logarithmic expressions equal to 3. That they're using change of pace property, So any time the case can be any time whenever there is a. Log off someplace into log of

some other expression with different bases. The change of base can help. It was about reason of lying problem or in fact 69 problems. We have been doing that then the problem was very easy problem. It was just an algebraic manipulation. Which which we can do very easily, it just it just gives an idea how to do algebraic manipulations and eleven problem we have shown some relation to be satisfied. Again we used rigorously change of this. What's always that particular form? The 12th problem we have used under the current change of base property and we derived the expression in a very simple manner. We were able to show the relation. Do you remember that was locked to the PCP of the PC and locked the BBC of MDC and lock the PCB?

So that also we have done. Third problem again, change of this, but the expressions were given in the complicated form,

So we first simplified the expressions of text and then showed that the relation is satisfied easily. This was a very interesting demonstration for the power of change office. In the last problem that is 14 problem. We have actually derived one power where the base has a power and the number has a power.

So it was on the form logarithm base. It is to be raised to it and we showed that this can be equal to  $10$  upon log to the base of. This was an interesting prediction. The change of interesting redemption from the change of base property. I'm sure that we can actually derive. We can actually simplify many calculations if such a form exists, that the answer can be very.

So in particular we have moved some relation based on this.

So today's class we have solved several problems based on change of based property. In fact, this lecture was dedicated to change of pace.

So once again, thank you for watching. See you in the next class.