

Hello dear. Properties smaller properties are more radical equations. Quadratic equations involving some special functions like. Functions. And then also we will see some problems. Quadratic equations. How to solve them using differential calculus methods? Things worse. To see some more problems on how to find the. Like you like that. There are some. For real solutions. Of the equation involving modulus function. 6 square for example, $X^2 - 3X - 4 = 9 - 1X^2 - 1$. The modulus of the size. It's still quite different from that. That's.

So what we do is they simply because both the factories are anyway, So that is factory sealed inside. The model is for instance the first term for reading will become it's minus four $X + 1$. And this is my minus $6 + 100$ minus. What we do is we we can split it. Babies models are models of baby, therefore it is modular surface minus 4 modulus somethings plus one. The subjects.

So that. The boys at which the size state. Will be at minus one because of this $+4$. Because of the loss.

So therefore the important points are. Might as well. What? Face changing.

So let us. Consider the case by case where it's belonging. We are looking for a real solution. And the stakes are mixed. These are equal to minus one. What is happening?

So that is our first case,

So let me say, let let's let's all are equal to minus.

So in that case. For me it's it's minus. $X + 1$ will be negatively $X - 4$ also negative.

Therefore the equation the equation becomes. Murder suspect.

So that I take the modulus intervening minus of minus 4. My associates plus one. Is equal to 9 minus. It's just one less that is. By the $6 + 1$. Minus something.

So I'm simplifying this,

So this minus minus becomes plus $X - 2$ three. There it becomes a simple quadratic equation of the quadratic expression on the left side. $6 + 1$. And then by simplifying this. Gives square minus. It's minus 14 equal to 0,

So the reason for learning equation which can be purchased

So the roads are seven by two or two. Explain the seven thieves. It's this. Discuss.

Seven by two and it's. Play this one. But this is less than minus one. This is the assumption we have made. In this case,

So therefore it's equal to 7 by two is equal to. That make ourselves explicit. It's the same. In this case. Second case, there is keep saying in the next interval it's minus $1/2$ plus one. For this minus one are equal to. So. Replace the. The model is knowing that this. Takes my mother. Subjects minus four will be like it is minus $6 - 4$, but the $X + 4$ positive $X + 1 + 36 + 1$. Is equal to life plus. $X + 1$. Already there is a minus sign.

Like

So again simplifying this we get. Minus $6^2 + 3X + 4$. $6 - 1$. Let's say. Three $X + 4 = 0$. Obviously that's the point of. This is negative, because this is fine. Latest movies. English. Since. Is that? Since these. In this case. The next case where. The lesson. See, this is what is happening. The equation of this equation models of $X - 4$. Modernist fix plus one point become positive. $6 + 1$. Minus one. In this. The last is.

Because it's just created. The equation for the dogs are. Positive,

So therefore it is. Like the case one. It becomes the same equation because everything is So positive positive positive. It is possible that it is exactly like. That's the case.

What we have seen. The equation becomes the same equation. Believes that. $7 - 4$ But this is since 6 is greater than equal to 4. This. Therefore the solution is. Areas. This is how we deal with this. Safe. You know, let me. Take some program. Let us consider this equation. Recordings. $4X^2$. Quadratic equation. Being equal to 0. That feeling. Place between. This one. Before that. Show that.

So we do not have any methods solving right now in the quadratic English software solving these. OK, immediately. This problem

So that there exists a unique. It's at 2. On the Internet. I'll find out. How are you? It's like this still seems like itself. Now we can just see the value of this silver disputing the expression, but it's a good offer and it's plus one. What happens is that is taking advantage of this expression. They had slaves.

So it's easy to see different. Is equal to. These this one.

So what is happening is it is equal to minus 1 by 65 and is equal to minus $1 + b$. Play the song. $1 + 3$ will be. Let us take one is obviously is $4 - 3 - 80$. Because we like see that minus one is $1 - b$ is. For instance, you can see this again, we can. But for me, it's like like we just multiply these. This. What is minus $100 + 1$? Let's see what. Like

these? Minus one. That means. It's like. You might as well. Minus one and B is equal to minus one. No, you see this because this is negative. Therefore we have the effect of. And different one. Obviously effort one is not equal to 0. It is already. Different one, but having opposite things. Things. The function is function. Since the function is continuous. For instance, let's say. This positive at some point because of the continuity of the function for saves. Then at some point it has to. Cross the exact axis So there exists some point. That says something. And they don't have one. System. Fearful of disease. Public service. Now let us see how to find that. Thank you for that. So it's not that it has to cross only once when it's inside the graph can be. Something like this? Also suppose it means you are one of the subjects. More than once, but you'll see that it crosses the X axis points. The uniqueness exactly 1. So that what I do is. I take the function like that six, which is a quadratic expression. You see that. For its cube minus three X - B. Or let's square. What is 3? By simplifying this sentence. Anyway, this is. Positive. And it's minus alpha, So will be faster than that. That's just sexist. Therefore, what we can conclude is consistently increasing. It cannot be like this. What do you want? So therefore. 0. Exactly. Now let's see how to find the root. Focus what excuse? Minus three X - 3 equal to 0 So far that I Simply put the note 5. Right now. So for Texas, equal to because it has something like quadratic. This protects equal protection. Or it's for positive data? By the sea. So the left side is. Nothing but the cost. Is equal to this? Peter is equal to plus. Yourself. Customers. It's. Plus inverse. The solution is. This. Exactly. Also 43 plus difference. That's the problem using the Internet. Suppose. Be over. 0211 for us. So we're kind of feeling close. So quadratic equation. They expect us to be seeing. Indians. Another that is. Close. Let's see thieves. 0. Also see. But in the serial numbers. Yes. So that. That then. On the Internet, but the equation. Quadratic equation. Please proceed. On the. So if I take the properties very simple, if I take the. Take one. You know, just like. Closing things. Yes. Let's see. So by the given assumption it is given. And that is. The second is quadratic. Function, that's what product is. And they. In the properties of difference and by this. I know my. They've given us some, you know. See if this type. Basically. And also. Maybe? No. No, I'm using the voice. Be there at some point. That's fine, then. The function has like this and then. So at some point it is. That makes success, So the supply. But if this is equal to 0. Somebody don't steal. The opening sets that. We know that if there is nothing but. Yes. Given. Yes, yes. What? There is. Thus causing C. Please square plus. See $K^2 + 3 + C$ is equal to 0. And obviously this cosmetics cosy. This one is. Is the plastic number. This estimate. Gave me a squad. Saves. There's days and I wanna entertain So that is the case. The solution of the quarter quadratic equation $X^2 + 3$. Sam this is the exercise for you. Thank God. OK. So let's say PVCS numbers, real numbers. 0. The equation. Three 8^2 . But seeing equal to 0 as a place to work. On the Internet. So what do you do to be this? I then show that there are four zero is. Just like 0 is equal to 5 to one. And then I'll play the role there. They're gonna give you the information. What is quadratic equation? Let's say for producing. Great. There's another using. Start with straight forward. Consider this. If it's. Yes, that's equal. $X + b$. You know that. That means they go is older success for all its belonging. OK, So then you have this. Defending a loose sampling function GX. You're always. Yes, the 2nd. Show that. Also is like. So please. So obviously, though, obviously from the given assumption this effect is greater than zero. Therefore, what is the issue that is there? There is three of your friends would be substantial. That's that's the end of the expression X^2 plus BX plus C. This is negative that we have. I believe possible. Yes. Greater than 0. So let me take the keys. Let us fight for this deal. Say you made a quarter any expression that is $a^2 + X + C$. This. Quiz. But see. 2nd. So I'll simplify if we get the X^2 . $8 + 2$. It's because they are concerned there will be

2 plus plus. No, let us computers.

So since you know it's a quadratic expression, there are already, we know that A is positive,

So that it's very clear and now only thing we have to put the discriminant. These the best care minus four is either is B + 3 year old style. Minus. 48 states that is 2 years plus members.

So what they say it is. Stories. This is positive that for Courier Square is positive, square minus four is negative 2 - 7. Getting positive again. That's what it already is possible. This coefficient of X squared is positive. That is. Thanks. What I wanna do? OK. Properly. By looking at the traffic. Let's see. Quadratic. Let's be, let's see. All boys listen. Greatest one. Is greater than plus. If so, then.

So that. There is some combination. CBC. You can't say that

So that. Smart people hey.

So this.

So no way. The real roots, therefore, we know the. For this. And then minus 4. The question has to be this way. This is all. That minus one minus the best. All of the function can be appreciated. This is also. Minus one.

So these are the possibilities so. Take this place. Again, it is. OK. What is this one here? In this case is? Because it's a conflict. Is positive. In this case, you could take the minus one. Yeah, but might as well as possible. Also his past. Let us get minus one is negative. Press 1.

So that this high multiply this year in the effect minus one. That's. Is this possible? These negative. It is positive that this product is negative. Alright. Yeah. If. Same thing here. This year is positive. This one. Is that? And you.

So all the cases we have the same. What we have. Different might as well. In both cases. He's taken. It's also negative. What is the minus 1 - B C that is? Latest meeting will see. Different people. Speak blessing.

So why you divide? Inequalities. Both sides by his party waiting square. This code is what it is. One way this be by, let's see. I don't know what it was.

So this is the 2nd. As you say. $1 + - b$ by CB ya. Let's see. This is what we want to do. To see what the problem involving extensions you already available properties. Solutions. Log in. Quadratic expression six $6^2 + 17 X$ plus five to the base. Two $X + 5$. Is equal to 4 minus. Log in. Another quadratic expression. Four $X^2 + 20 X$ plus 25 to the base $3X$ plus. Let's say that. The basis.

So what we do is before we combine this, let us factorize this quadratic expressions. So logged the website is the login. It is the greatest. Factorising you get +5. Well, if you look at these terms. These are simply the basis of these problems. It is equipped 4 minus. Log. This is one of the factories. Boys this fight. Please. No we can. Our problem is not simply by using the property of the logarithm. Log off. ABC could login plus log. That's what

it is. Fire plus. The first one in the face. You know the cloud of. And that's what it is. Why is this playing?

So that basically it's plus one.

So you know the doggy basically is 1. Therefore it is less. Plus one. Like is equal to 4 - 2 types. Phase three of plus one.

So I put substitution. But why is equal to log comma? It's this one. For the Facebook experts. But again, I'm using the property of the logic for this one.

So this is how the equation becomes. Is equal. That's going to the face.

So therefore they given. The equation here. Is English. This way is equal to 4 minus. All this gives a quadratic equation,

So it's very simply this. Which new source solution where you want one? ** **** boy is equal to 1. No way back. August the month. City it's plus one.

So basically it's just like. Is equal to 1.

So it is simply this. The voice. Expressway. It's juice. Who is equal? $3 + 1$. Basically, $X + 5$ is equal to. 54 square is equal to $3 = 1$. And this by simplifying it is four $X^2 + 17 X$ plus 2014 thirty zero. They obviously know this. What I think expression. Square minus Four is 4. There are no solutions. Glorious nation. That the only solution is.

Suppose. We have a inequality 1 plus. Squared plus one. Is playing. Same place. It's for the sports, let's see. And asking that this inequality is satisfied for all X belonging. Obviously we know the definition of clock is different. It is very good. The first thing the first still. We have this inequality for our exploding point

So that we are very careful.

So the question is by the reader. Find that right. This inequality holds for all exploding.

So what we do since the base is same, I can take it to the website. That is what is greater than or equal to log. That is my life. Minus of that.

So let's go to square. Plus $4X$ plus. Honestly. Let's say I can play. Dog fight. Press X. Same same same.

So long is an increasing function therefore. We have play must be greater than. Split, this works. This morning is the same. And note that. Since August is different.

So this expression has to behave squared plus. Note the same as $4X$. Alright, the denominator is like because it's going to respond, therefore require plus \$4.00, So should be. This is the information we have. For this lesbian. Fighting. No thanks. To see you square. This forest. This is positive. And this is positive. There's four $X^2 + 4X$ Plus, say. If this is positive. For all its below what it means is the D. Which is you. 16 minus square minus 40 is either is 16 minus. Employees. Right there. To be positive it should be possible,

So these are the conditions

So that the log. For this, for these negative ideas, positive this implies that is the square. Is there like full? Ladies. This way is better than 4 . Bodies less than like this.

So a less than minus one A is positive,

So therefore this is. This is the possibility of. Please please. No. Inequality. Mainly this fibrous. Same for you. Squared plus four $X + 0^2 + 1$ right away at that equation. From this event. You square.

So this is the information you've got. This equality is that was correct. That would be less than or equal to $5 * 6 - 1$. Please don't say you bring everything to the left side. What we have is by squared expression. Quite a story. Was five. For all. This is possible only if. This is. Hey Cortana, please. $16 - 4 * 5$ minus 046 . Is this? The coefficient of this query, which is $5 - 8$ has to be positive. That is a is less than. Esquire these are equal to 4 .

So I mean it says square greater than or equal to 4 means by minus A . Please do. Well, you might have series. Boy this yeah. My name is. Is there any noise? This way. There are equal to 3 . Body is 47 . For that. Together

So already we have greater than 4 . Nobody. Therefore there. That that I mean. They could. Interesting program. Ordinary. It was. In the solution we use the quadratic equation. Solving. Increasingly involving. Its ways. Equal to 63 . In the absence. Is it equal to 23 ? But it's very easy.

So by looking at these two tests. See explained $40 - 40$, but we can't do anything with this equation. Separating would not be a thing.

So what we do is by looking at the second equation. The right side is 23 is a prime number. That will not be persuasive,

So therefore this is

So many.

So what we do is now consider the for the second equation. You can try to send times $X + y$ is equal to 43 is the quality of the product of flowers. So. I've seen the example you have. The distance peace. Either set equal to 1 . Are they supposed to? You said this was So easy. But they expressly cannot be one, because they're not there. It's mostly, except we are in. That's what it's saying. That must be what you want,

So therefore this place since. It's the. The only possible because of this. Set music.

Easy. But no. That means this implies that is equal to 1 is very real. Now where we have to find the $X \& Y$? I don't know what you think. Again, substituting in the first equation.

So wait, what is the first English name 6% ? Is equal to 60 . That's what $23 - 6$? The experts said. And already we know that this is equal to $1 + 1$. Hello, this is a quadratic equation is nothing but takes square minus 30 . Four $X + 40$. Now I easily find twice the solutions are 120 . It is obvious that the service. As it plays, who is important? This gives. From the setting. Possibilities. Who is 24 ? And other solutions. It's. We use. These are.

So we have seen what it takes. That's what we have in this. These problems will help you. Something. Special conditions like. Female. 34% .

So we should be. Ingredients.