

Hello everybody. Solve the quadratic equation. You know study, study how. How to study the behavior of quadratic function? Discriminant. We are going to study. What are you keeping? This inequality. Games. Beans. Greater than.

So we call it quadratic equality. Neither can be greater than zero or greater than or equal to 0 or less than zero or less than or equal. What we mean by solving the same questions this inequality? If you want to find the set of all you see.

So the policy says that we see the qualities of satisfying. Then we say the solution of this inequality. For instance, if I consider this inequality may be the same steps BX plus C greater than zero. If I am able to find $acnr$ then. What is equality? We say that this is a service for this quality. The solution is to not be unique,

So we are doing for your final solution set set of all X such that $X^2 + B + C$ rather than C .

So this is what we mean by the user. For instance, how to find the solutions in the desert? This picture. For the. Let me start with a simple problem. Let us solve this. Expert. Just three years. Latest.

So what do you mean by son? We are interested in finding the such that. Equality satisfied

So we are interested in finding the selves. This is a simple quadratic equation, quadratic expression. This can be easily practice like X plus. Wife because since plus five and X minus. Especially like this. And this is

So the solution setting the solution set. I'll be out. Windows 7 finding the set of morning satisfied. The city. The. Easier. Simply, it is don't products possible products. The product will be possible,

So in order to understand that the easier way that we just use the option call. Is it really anybody easy to understand this? Otherwise, generally students commit the mistake in finding the value of things. For example, I draw a number line. You know, somewhere including this minus, minus, minus five is a root root, so. Here it is. Play.

So what you do is you take this first. Let's say this is equal to X plus the first fact that $X + 5X$. That this was like factor and basically the this was equal to 06 is equal to minus five and this is equal to minus $5 = 0$. On the right side of that you put all the presidents plus plus plus for all the numbers you just written, only that just so.

So for the plus sign. Because it's like this. Let's say that the seal and put the negative negative. Also on. This is what this is. What now we have done for this first thing? The next system X minus and it is 0 minus is equal to two, X is equal to 0 . Let's say you put the seal here and then right side of that. Similarly that I've stayed up there. Now you see the solution will be. They want this to be,

So we want them to be to get the positive positive, but we have to have. Be possible outcomes would be.

So therefore the solution will be somewhere.

So here we are on the PC. Yeah,

So in between you'll see from the zero and the tubes it is having the same at the minor. You've got the solution. The solution should be. The solution is that is that said.

Infinity 2. This might. Union. On the opening.

So minus 5.6 is equal to minus one and X is equal to two,

So that we. Included.

So that people will have that.

So this is the solution.

So the signal graph will be always very helpful in finding the solution. Yesterday that we have to sign. That's for the sake of understanding

So that you don't commit a mistake, whether anything.

So it looks like the more you know the more similar problem. This simple quadratic. Squared plus five $X - 3$ plus the not equal to 0 . Now my start facing this two. Like this one. Fix this thing. Is there an inequality one expression to excel minus three is a product that is like this. Three $X - 1$ into X plus.

So what we are interested we are interested in finding the solution. You see what I'm solving this?

So as I said earlier, it's the same. When it's sold, I don't know. This is equal to how the first time is zero when X is equal to half. 0 . Why? And the. Are you saying this is 0 ? The other. And you know, let us start with the $X - 1$

So X is equal to half minus equal to 0 . Then on the top of that and then equal the present on the right side. And then similarly here, then if you say. No. Because

So frustrated would take the second factory expressly by next is equal to minus three is zero. Therefore the zero there on the top of minus three and then put the President on the right. For the year.

So what we want is the product is the product of these factors that are equal to zero. That is possible if they have the opposite.

So that is possible only in the. Bring the money. OK, that would clearly you can try this. That being true, the minus three because there's an equal to 0 . $2 - 3$ is included as. Similarly the office.

So this is the reason. It's silly. Here I am considering a differential equality, namely the. Quality solo there is. Function himself function which exists in the form of PR perspective. Since. This person $X + 2$ by $X - 3$.

So please press 2. Stop with this. Express who? Is that are equal to? $4 * X - 3$. To play this then what happens you see? Just the list, plus this implies if I bring everything to the one side then it becomes less than or equal. Obviously when it's equal to 8 , you see that. It is released secretly. For instance, the numerator will be 10 and the determination will be 5 that are equal to 25 . Similarly protects equal to. There are some. They're still in the inequality, satisfied. Therefore, for all equal to, it will be a solution, but it's not complete solution. For instance, if I put minus four, what is happening? In this it is becoming $2 / - 7$ which is equal to. But it's it's like minus. Minus 7 here it is. Minus 2 , which is equal to 2 by 7 .

So 2 by $7:00$ or

So he says it is equal to minus four. Also is a solution, but that minus $4X$ is equal to minus. Four solution is now given by this inequality.

So what's the problem? The problem is with the the prospect applications. Multiply like this

So the method is the multi home by this. Then I will not get the company.

So what they have to do is insert. I think like consider this evening equality as plus $2 / X - 3$. You take it to the left hand side minus two and then you take the.

So they they. It's plus $2X$ minus. Feet. $6 - 3$. $236 - 3$. 0 . Then this is the same place minus 6 plus say. Divided by $X - 3$ less than equal to zero, that is 8 it's minus 8 .

Multiply by the minus sign, therefore lady first,

So it's minus eight $X - 300$ are equal.

So so the monkey before you start the inequality, you should already see that the right hand side,

So you bring all the time to the one side

So that the one side of the inequality. No, the moment we'll get this nonnegative this greater than or equal to 0 , both the terms will be positive about the both. The terms have been negative or both the terms.

So that is possible or any like that use the same. Did the number line here remember is the three. And it is. And then

So this is the first time the distance minus eight $X - 1$ is equal to 8 . And then put the sides on the inside of there on the right side of that.

So you take the three factor and. But the. 0% on the right side. Say that. The site should be safe. That is possible. Working in the.

So that's where the. I can improve my studying for the three because it is equal to 3 in Spanish. Open bracket. Then for all for all the for all the, it's greater than or equal to 8 . Lady qualities satisfied.

So this is the complete set. For the individual, follow that if I. By cosmetically I'll be getting only this parcel. I'd love it. So.

So this means that. What is that of the inequality? That's what I said.

So I eat more today. Take this. Express. $+4$. Of course, things that are quadratic inequalities, but we need. Already.

So I said, don't trust multiply. What do you do? You bring your everything to one side of that

So that you give the other side 0

So two $X + 4$. Plus one. No. We get $6 + 4 + 6 + 4$. Or this one? That equal to 0 . This problem is simply going to explain this to the numerator and the denominator. Factor $X + 1$. Solving this inequality, same assolving this inequality. No, as we said, you know we're going. There are three OK,

So that we can have. You know you there are two questions. We are getting the state equality will be

So therefore all prices are sitting. What does positive and one can calculate? So. Always better to signed up for. We're getting the city in the easier. So. The numbers are minus 1 - 4 and then. Let me put the zero in the middle. Wait? It is full. Don't let us take the numerator $X - 2$ and X is equal to X is equal to 2 equal to 0 and that plus size on the right side of the. Just wanted to say that. Don't you think that it's plus one? $5X$ is equal to minus one. You put the zero on the top of that and put the presents on the right side. Might have saved on the neck. That would present the experts. Is equal to minus four with the 0 . And then they say that that things. On the website. OK, no, you don't see the solution,

So we need to have all positive side so. Is it impossible to always? Pause. But what does it do? I do that. Would be possible? The medicine. All should be possible. For example, let's say. Because all are possible. Is that cool? One positive that is one part. There is only one position in this small interval. Every form minus 4. This.

So we get both. Minus plus club.

So why the school? Similarly, up to minus one. 1816 so. Open Internet.

So we have all possible

So from 2.3. The numerator and the inequality also.

So that completes solutions.

So this is the.

So that is the quadratic. That is sensitive to square. Minus two $X - 1$. You wouldn't like this first one. This is just. They said. If you take the next step that you make it make the right hand side 0 . Square minus two $X - 1$. Players. $X + 1 + 1$. It's just minus three $X - 1 / X + y$.

So therefore I must play by both sides the 1st 3 experts.

So now that's it. We get about that. Say.

So this is equal to minus one. Put the zero and put this thing out there. It's right up there. Let's say you put the negative signs. But this is equal to minus one. You know all the same. No it isn't. Over the top of the minus, open $3 + 0$ and then on the right side of that. Other than saying good things. Nope, should be positive on both should be

So that is possible.

So therefore. Are you there? Think this. Microsoft because Microsoft. This is. Yeah, for now we can. We can easily. You can write down the solution, the solution settings. $2 - 1 - 1.3$.

So this is the. Somebody said. Alright, just give a small exercise exactly on the board. Simply equality.

So that's the results. This. I don't know where it's. What is the quadratic equation? So.

So this is the solution. No song is supported, squared minus four $X - 6$. This cannot be affected

So much you're seeing the other factories that expiration and then. But now with this cannot be practiced. But we know we can that we can solve. This is a simple quadratic equation I can solve using the quadratic formulas. Presentation essays. Because my.

So the situation that you're saying that is I. Minus FOUR $X - 60$. Sorry about that. 0 .

This morning latest. Select study. Which is equal to minus one is the immigration minus one. $2 + 4$. Greater than five 6.

So therefore this is this. Take me somewhere some somewhere. Approximate approximate. 555555550. Yeah, and then the size of that, let's say.

So when I leave here, I. I say that. Selective sites. No, make it. Possibly. We like. What's a positive? Here.

So therefore the solutions it will be. Or third person on the right side of the 1st. Both are. I don't think any of you do. Cool.

So therefore, in both the cases we have the state.

So that works. Don't let us. I mean equality involving some other functions like modelist. I just don't know what to do. Just what is greater than. What is greater than? This is. What it what it means is if it is, this is very simple. This is very simple. If you want to break the models in this city, you can say that the slides between my essay and the person. Then we are doing this. Let us colonics. All it says is greater than the generally people. What it says is required. 36 is greater than A is 5. Ohh yes.

So importance is greater than. See some bugs. This is perfectly necessary that is greater than or exist. Let us see this case. Like to see it is that expensive. Similarly, we can write already. We have seen only given the exercise in that. Also we have considered the more these fires. For example expired is greater than square. Immediately following.

Greater than square,
So like 6θ like this either exists. Simply people. Generally people already exist greater than it is not correct.
So what we have to do is there is greater than a square. Or existence that. Similarly for expired because that is when it is in this case. There is exist. Let's see.
So these things. Any qualities that you will want to click the square or click the models we have to replace it with the right hand side. Exceptions. No. I. Let me see. It's minus 6. What is the solution center? Operating surface we have this model subjects treatments 6. Already I told you too much to think about this idea, saying this is to buy this property. That is why the square minus six is greater than two. Audience there minus 6 minus. You know us, like I bring it to the website. $6 + 26$.
So I guess like this,
So this is the qualities I can try to minus $2X$ by $X + 1$ better than θ . It's like. $6 + 2$. This is true, but again by the 2nd repeating this,
So this is. It's just. Welcome to be positive.
So either it's greater than two. Authorities quite. Consider the sealing quality here the discriminant. B square minus four easy is always negative. This. This points satisfying the silly question. Voice. Satisfying this evil. Technology. Seriously? That's what the 2nd. Might as well. Period. This is the complete solution. Do anything. It's similar type of quadratic inequality, but involving. One of the things. Minus two $X - 5$. 6:30 this morning. The seller. Music.
So you know. By looking at this inequality we can see that this is something if you look at the first square minus two. This is exactly behaving like $X - 1$ whole square.
So therefore simply I can create the $X - 1$ four square.
So this I want to solve this inequality problem. By writing it says minus one, four square, then the inequality becomes 5. Minus $6 - 1 + 6$ because everyone is here. $X - 1$. So this is simply this. $6 - 1$ foot squared plus $6 - 1/4$ square modulus of $X - 1^2 - 8 * 6 - 1 + 6$.
So I get the easy substitution
So that it is converted into the real moment moderating inequality.
So the way is equal to.
So that you do any quantity becomes slows the other quadratic square minus five $y + 6 = \theta$. In the 70s. It's like it's like priceless,
So it made us $2\theta - 3$. What's the?
So by using the sign.
So therefore the situation is in place. Please without you. Modeling software models of $X - 1$. Please the people. That's great. What is this? You might as well. This is something that is are equal to 3.
So I'm thinking one thing first, one question. What's your date? This is somebody. See, that's why it is. Because modesty is greater than humans. Makes this. Alright.
So those that are equal to models of $X - 1$ is. Yes, minus for this. Greater than or equal to. It's might as well.
So this gives. This is equal to 3. Body systems that are required. No, I think the other inequality. But it's minus one. Indicating I'm gonna see it. 3. Is that? Which is where. That's what it is, minus 2. Now I can find the solutions. It says no where we operate the common. It says it's equal to. The systems are minus one here it says. Play this tour that food that's the difference. Are you listening to my distance? Regarding minus one and X is greater than or equal to minus two than for this union. This is not equal to three, and here existence than or equal to four. Therefore it is $3/4$.
So this is the company. Like so. Equality separately, this inequality and the having this inequality. And then we are writing the commentary. Decided to say that would be the solutions and thank you. Alright, let us see. OK. So. Little upset. I want to solve this. Such a square is the $\#0$ constant. Yes. Select to solve this. There is not equal to θ . So looks like the radio.
So that this equality is satisfied. Is doing the lease. We know the what we do is basically solved because we don't want to find the equations. Plus one. That's minus square root plus $1 + 1$ square. At least that minus 3θ .
So this gives solutions as by simplifying. See you later.
So you're success one. The data is equal to 1 vertical. So. But a is equal to what we are. We are, we are given any qualities that square. It's square. Clients. This one. $6 - 1$ horse square. Value of excess.

So that's what my data is equal to 1. Just take the other case please. No, when there is greater than one. What is greater than one? Obviously, one way is this. Is not equal to. I write this. Society. Thank you for this. Only. Just. \emptyset . Slaves. Yes. The most. Why you say that? God this inequality in the $7\emptyset$, but we have to have this. They have done the opposite sides.

So therefore the setting for what that means that one plus and everything that is happening only between the.

So here it is per side. This year, whether inside of \emptyset .

So there is

So therefore the negative and positive both sides different is happening between the right way and

So therefore I can write the solution set.

So this sentence,

So the solution set is not unique. It is complaining constantly. That is. This is the case that he is. No, let us see the other case where he is. And nobody is opportunistic, is possibly the second third case. The day is. \emptyset . Therefore, babies. Therefore, in this case the solution will be obviously between the solutions and we can verify that. But it is. Others. Now we're gonna spend another healing. What is the inequality? The inequality inequality inequality? Go back to the. What? Equality. It's square minus plus one is negative. This inequality becomes. This would be explained as well. Everybody's seeing the sign. Positive outlook. That's what we have. By the sea.

So depending on the parameter.

So we have seen the case as the reality is positive is positive cases. Let us look at the. The problem is something. Giving the solutions. The various. For instance, let us say. Is that? X^2 why does he is? Present. For all X there is this inequality for all its belonging to the real. It's crazy. They explain why the saves like this one.

Warnings. Now we are. Order what do you mean? The value of. Given the equation and, then we found the itself satisfying inequality that we are saying that the inequality satisfied for all exploding. Yeah, the domain is. Does anybody have any and then now we are interested in writing their value. Immediate observation when A is equal to \emptyset . Play this one. Before it is satisfied for all links, obviously it is satisfied. You'll be able to see is also,

So what is the value of? That is the question, obviously. My name is equal to \emptyset . We get the left hand side because minus one, which is obviously less than $\emptyset.6$. Therefore, the inequality satisfied. Qualities. What audience did? That were equal to \emptyset is all that. There's one solution on that. Equal to zero. Since this any quality is. Satisfying for all this. Their job. To me. Already it's going to be square minus $X - 1$ times to be equally in this matter.

So in that case my. This is equal to a square. Plus 48. Which implies this is simple. OK. So obviously it cannot be constantly clear because there is possibly a $+ 4$ is positive and cannot happen. Therefore is that we are. The solution will be.

So therefore he is negative. Then what? The score. Possibly. Take place. Days. You cannot be. And not. Because of this. Are you based? The greatest school that work there, said, you're saying that they can be only on this. Give me. Sports. We can add. Therefore the complete solutions. How are you? Also, because equal to zero also is.

So let me. Progress on this similar thing, but in the inequality satisfied. Not the entire. Presidents. It's given that. $A^2 + B + C$. Better than \emptyset . As this. What is the next lesson?

So that there is inequality that is made only on this one. What is the solution? Other Indian. $C^2 + 3X$ plus. No, totally not gonna take that given assumption. This is the same other than zero for all. It's the same order than zero for our expanding the opening. It's in place over there. To this positive, the graph of the function, what it means is. This is the exact list. It is positive or the interior of the trouble going to it is possible. And the rest of the interval. It is this solution that is the complete solution that is, the solution has to be only in this context. Get out, period. Obviously for this. So. Simply say. Is positive the graph? Serious question. This is possibly the expert. Lucy is positive. This process. Practice. For all its. Building adulating the game. It's just it's. Let's see. Because everybody. 1st. Which is. For this quadratic expression in the 16 point only. Obviously the selection set of this inequalities. They were saying that. It's minus One $X - 2$ is less than six of the seven inequalities, also same.

So this is only by expand this squared minus three $X + 2 + X$.

So this forces, though I can compare the coefficients that by this process that BA is equal to 3. C is equal to. See by A is equal to 2.4, C is equal to. The days.

So this is the information by various history. C is equal to. Notice look at the other in the inequality. $C X^2$ plus BX plus. Let's see that square. See. Since you know.

Substituting the value for C. Who is square? I'm reading everything it comes up again, So two and square. See it's. Let's see. So. Is the solution set up? So. And dividing by two X squared. Please. $X^2 - 3$ hits plus one is possible. This edition no, I guess I praise this. Find price. You can see that both of them have been impossible and both of them. Select the product possible

So therefore. So. Infinity.

So today we have seen the. See any place that you're doing that with the inequalities, for example.

So what I'm saying immediately? This day

So these are the small small things you have to be very careful with. The inequalities in this jurisdiction. To solve the quadratic inequalities. So. Gotta give an idea. Subjects that were running inequalities but at the same time if the quadratic inequalities satisfied, what will be the current interface on the property?

So both are very important. Both. Thank you.