



Sep 30th 6:33:21 am

Hi Oscar G, welcome to Yup 🤖. I'm finding you a tutor now.

Sep 30th 6:33:23 am

I'm here to help you prepare for your tutoring session. You can talk to me by tapping the orange button that appears at the bottom 📱

Sep 30th 6:33:25 am

TUTOR FOUND, NOW REVIEWING PROBLEM AT NO CHARGE

Sep 30th 6:33:28 am

¡Hola!

Sep 30th 6:33:37 am

BTW, participation is important ✓ Not only will you get your work done faster, but next time you'll be able to solve problems on your own.

Sep 30th 6:33:39 am

SESSION STARTED AT 1:33 AM

Sep 30th 6:33:44 am

Hello Oscar! Welcome to Yup! :)

Sep 30th 6:33:56 am • *Tutor greets student appropriately, though nearly 30 seconds have passed since they were connected*

Hello!

Sep 30th 6:34:04 am

How much progress have you made for this one?

Sep 30th 6:34:19 am • *Tutor asks about progress, but fails to determine the student's existing knowledge*

None at all

Sep 30th 6:34:29 am

It's okay! Let's work with this problem together. :) We need to find the values of x, right?

Sep 30th 6:35:17 am ✓ *Tutor reassures the student, uses "we" language, and verifies the given instructions*

Correct

Sep 30th 6:35:26 am

We have different methods in solving quadratic equations, which method do you prefer to use?

Sep 30th 6:36:15 am ♦ *(This was a good opportunity to directly ask the student which methods they have learned in class or used previously)*

the easiest way preferably

Sep 30th 6:36:51 am

Great! :) For me the easiest method is by using the quadratic formula because it can solve any type of quadratic equation. Are you familiar with the quadratic formula?

Slowest response Sep 30th 6:38:49 am

- *Tutor fails to choose best approach (square root method or difference of two squares), instead opting for a lengthier method that would be difficult for inexperienced student*
- *2 minute reply time for a fairly short message*

can you briefly explain it to me

Sep 30th 6:39:15 am

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Sep 30th 6:40:12 am ✓ *Tutor uploads clear image of the formula*

This is the quadratic formula. Using this formula we can solve the value of x of any quadratic equations.

Sep 30th 6:40:35 am

All we need to do is to substitute the values to our formula.

Sep 30th 6:40:56 am

Please take note that the quadratic equation must be in this form: $ax^2 + bx + c = 0$.

Sep 30th 6:41:42 am

Does that make sense?

Sep 30th 6:41:48 am ✓ Tutor checks for understanding

yes makes sense so far
Sep 30th 6:42:13 am

Let's start solving! First let's identify the values of a,b and c in $9x^2 - 1 = 0$. Can you give it a shot?

Sep 30th 6:43:04 am

a=9, b= -1
Sep 30th 6:43:45 am

You're close! You got a=9 correct. :) Please take note that 'b' is the term with 'x'. Do we have a term with 'x' in $9x^2 - 1 = 0$?

Sep 30th 6:45:13 am ✓ Tutor redirects student's mistake with a adapted guiding question

ooh i see!, so c = -1?
Sep 30th 6:45:33 am

Yay! That's right! :) What will be the value of b?

Sep 30th 6:45:57 am ✓ Encouraging language / guiding question

0?
Sep 30th 6:46:10 am

You got it right! :) We can now substitute the values in the quadratic formula. Can you give it a try?

Sep 30th 6:46:44 am ✓ Encouraging language / tutor invites student to proceed independently

◆ (Student expresses confusion, indicating that an adapted approach is necessary)

can you show me an example, still a bit confused
Sep 30th 6:48:22 am

Okay! :) Give me a moment to find an example for you.

Sep 30th 6:48:56 am

The quadratic formula is $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$.

In the equation $2x^2 - x - 1 = 0$, **a** is the coefficient of the x^2 term, **b** is the coefficient of the x term, and **c** is the constant. Substitute 2 for **a**, -1 for **b**, and -1 for **c** in the quadratic formula and simplify.

$$x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(2)(-1)}}{2(2)}$$

$$x = \frac{1 \pm \sqrt{9}}{4}$$

$$x = \frac{1 \pm 3}{4}$$

$$x = \frac{1 + 3}{4} = 1$$

and

$$x = \frac{1 - 3}{4} = -\frac{1}{2}$$

Sep 30th 6:50:00 am • Tutor uploads completed example which would be overwhelming for a student new to the concept

Are you able to see the example I sent?

Sep 30th 6:50:18 am

Unfortunately you've been away from the app for more than 5 minutes. I had to end the session so that I can help other students. Feel free to submit another request whenever you're ready!

Sep 30th 6:55:00 am • Rather than checking in with the student to see if they needed help understanding the uploaded example, tutor waits until the student has been inactive for 5 minutes, at which point the session ends in Explanation Phase

✓ Explanation is off to a good start with well-broken up, easy to follow instruction

◆ (Here we needed to see the tutor guide the student through an example step by step rather than expecting them to interpret a completed example independently)