

00:01 Good, ok. So, Maria, you organized your work so carefully that I don't need to ask you any questions, because I can see what you're thinking.

00:08 The only thing I would say is that this step right here, is not wrong, but it's not necessary. Because you did it in your... and same thing with this.

00:15 Right? It's not wrong, but did you do ... all of this, can you do it in your head?

00:20 Mm hm.

00:21 Can you do it using the mental math strategies from before? Because if you can, then you should.

00:26 There might be harder ones, like This one, you could not do in your head. I assume, right? Right.

00:33 So that one, you can do algebraically. But if you can do it in your head, do it in your head.

00:38 Yeah.

00:40 Another A+.

00:45 ¿Donde esta la C?

Where is the c?

00:56 Good. Good. Yeah. Perfect. Good, Maira. So, same thing.

01:03 Me gusta lo que has hecho.

I like what you've done.

01:07 Cuando estas en este paso, si puedes encontrar las respuestas mentalmente, no hace falta...

When you're on this step, if you can find the answers mentally, you don't need to...

01:14 Pues si, ya no...no mas para...

But yes, not yet, just for...

01:15 Lo puedes hacer si quieres, pero no hace falta. ¿Ok?

You can do it if you want, but it's not required. Ok?

01:19 So... D.

So, D.

01:23 9, 12, good. Lo factorizaron. Todo esto se llama el mismo. Ok. Ok. La E?

9, 12, good. You factored it. All of this is called the same. Ok, ok. E?

01:35 Excellent.

01:38 Give me one second to finish with them. All right? Yeah, you guys are doing too much work.

01:43 Your goal is to be able to find the vertex, da me un segundo, por favor. To find the vertex of this parabola, without a big long t-table.

01:52 All right? So if you made a big long t-table, that's too much work.

01:55 You told us to show work, though. To show work.

01:58 But I didn't say, show too much work. Like you could show..

02:03 Show ALL your work.

02:04 But, but that doesn't mean you have to... like, if I ask you to graph an equation that looks like $y = mx + b$, you're not going to use a t-table, right?

02:13 You use rise and run and the y-intercept. Right? Ok. Same thing here, you're shooting for shortcuts.

02:19 Tenemos que...

We have to...

02:20 So let's, so let's talk. So, what do you guys know about the vertex in this situation? ¿Qué saben sobre el vertex?

What do you know about the vertex?

02:27 Que es negativo..

That it's negative.

02:28 It's negative.

02:29 What's negative?

02:30 The point on the vertex.

02:31 Which part of the point?

02:33 The... x and y.

02:34 Both?

02:35 The y.

02:36 The y coordinate is negative, right? Ok. Maria, what else did you say you knew about the x?

02:43 Negativo, positivo, que? ¿verdad?

Negative, positive, what? Right?

02:45 Entonces es...

So it's...

02:48 Ok. Maria, what do you know about the x. What did you say about the vertex?

02:53 That it's the point in the middle.

02:54 Do you guys agree with that?

02:55 Yeah.

02:56 Melina, are you caught up? Yeah?

02:58 Yeah.

02:59 So, Maria dijo que el vertex es el punto en el medio, all right? En el medio de que?

So, Maria said that the vertex is the point in the middle, all right? In the middle of what?

03:03 De la parabola.

Of the parabola.

03:04 ¿Y de que mas?

And what else?

03:05 Donde se cruza el... de..

Where it crosses the.... of...

03:07 Para arriba..

Above.

03:08 Not... almost.

03:09 Donde es casi...

Where it's almost...

03:11 En el medio de que?

In the middle of what?

03:12 De los x-intercepts.

Of the x-intercepts.

03:13 ¡En el medio de los x-intercepts! Exacto. El punto esta justo aqui en el medio de los x-intercepts. Good, Eduardo.

In the middle of the x-intercepts! Exactly. The point is right there in the middle of the x-intercepts. Good. Eduardo.

03:18 So... lo que tienen que encontrar es el valor de x, que esta en medio de los x-intercepts. No hace falta usar una tabla completa.

So, what you have to find is the value of x, that is in the middle of the x-intercepts. You don't need to use a complete table.

03:26 ¿Por que 2?

Why 2?

03:28 Porque esta en el dos y...

Because it's on the 2 and...

03:30 Jesus penso que era uno, ¿por que es 2?

Jesus thought that it was 1, why is it 2?

03:35 Porque esta en medio del 1 y ... como a traves de los...

Because it's in the middle of 1 and.... like between the.....

03:41 Mm hm...

Mm hm.

03:42 It's the number in between.

03:43 So right here, there's three numbers in between, and right here, there's also three numbers in between.

03:49 Ok, so. Si ahora, abase de eso, saben que ... la coordinada de x es 2. ¿Está comiendo algo, Melina, o que?

Ok, so. If now, based on this, you know that... the coordinate of x is 2.... Are you eating something, Melina, or what?

03:57 Ok. Ahora, ¿qué van a hacer?

Ok, Now, what are you going to do?

03:58 Buscar el y-intercept.

Look for the y-intercept.

03:59 Mm hm! And how are you going to find that.

04:00 Por valor en la ecuacion.

By the value in the equation.

04:01 Using the rule, that's right. Ok? So. So, on all of these, if you can find the x-intercepts, you don't have to make a long t-table.

04:15 You can just follow this idea. It can't be 9.

04:19 2 times 2 is 4..

04:20 Negative.

04:21 Negative 9.

04:22 Puede ser 9?

Can it be 9?

04:23 ¿Por que no?

Why not?

04:25 Negativo 9.

Negative 9.

04:26 Ok. Entendido lo que están haciendo?

Ok. Understood, what you're doing?

04:30 Si, no hace falta hacer una tabla grande. Ok. Go back to your teams.

Yes, you don't have to make a big table. Ok. Go back to your teams.

04:36 No hace falta en hacer una tabla grande, ¿por qué no? ...

It's not required to make a big table, why not?

04:39 Porque es mucho trabajo.

Because it's a lot of work.

04:40 Aja, ¿y? En vez de hacer una tabla grande, ¿que van a hacer?

A ha, and? Instead of making a big table, what are you going to do?

04:43 Ok. ¿En cual están?

Ok, which one are we on?

04:44 En esta.

This one.

04:45 ¡No se!

I don't know!

04:47 No se? El ... no tiene la respuesta, ¿verdad? Quiero el vertex. ¿Qué son las coordinadas?

I don't know? He... doesn't have the answer, right? I want the vertex. What are the coordinates?

04:53 Y no es esa.

And it's not that.

04:55 ¿No es del vertex?

It's not the vertex?

04:57 No, es este, al medio del -2 y -2.

No, this, in the middle of -2 and -2.

04:59 ¿Cómo sabes?

How do you know?

05:00 Porque, como aquí es este numero repetido, los dos.

Because, here is the number repeated, the two.

05:04 Yes!

05:05 Did you hear that, Lana?

05:07 Ok, asi que tiene que encontrar las coordenadas exactas.

Ok, so you need to find the exact coordinates.

05:10 Oh, aquí, aquí aquí aquí.

Oh, here, here here here.

05:12 Aja.

A ha.

05:13 Aquí son los 3.5... no.

Here they're 3.5... no.

05:17 Si, 3.5

Yes, 3.5.

05:19 No, -3.5.

No, -3.5.

05:21 -3.5? Es entre -2 y -3?

-3.5? Is between -2 and -3?

05:27 De...

From...

05:28 Debe ser 2.5. No se.

It should be 2.5. I don't know.

05:31 ¿Qué numero esta entre -2 y -3?

What number is between -2 and -3?

05:33 A....

05:36 2.5!

2.5!

05:38 ¿Negativo, verdad? Porque no?

Negative, right? Why not?

05:40 -2.5.

-2.5

05:41 ¿Por qué no?

Why not?

05:43 Nos equivoquemos con el 3.5.

We made a mistake with the 3.5.

05:45 -2.5

-2.5.

05:46 Ok. Vamos a ayudarnos con el 2 de negativo. Entre 2 y 3...

Ok, we're going to help ourselves out with the negative 2. Between 2 and 3...

05:51 2.5.

2.5

05:53 -1.5.

-1.5

05:54 Es entre 2 y 3?

Is between 2 and 3?

05:58 Es -2.5.

It's -2.5.

06:00 Ponganse de acuerdo y...

Okay, come to an agreement and...

06:02 2.5!

2.5!

06:03 Positivo, negativo, o...

Positive, negative, or...

06:04 Negativo!

Negative?

06:05 Y ¿por qué dijeron positivo, entonces?

So why did you say positive, then?

06:08 No, negativo.

No, negative.

06:09 Ok. Asi que es... apúntenla en la tabla, muy bien, Maira, háganlo asi. Ya tiene que encontrar la coordenada y.

Ok, so then you need to mark it on the table, very good, Maira, do it like so. Then you have to find the y coordinate.

06:18 12.5.

12.5.

06:19 No.

No.

06:21 -2.5.

-2.5.

06:22 No. La tienen que encontrar, esta coordenada.

No. You have to find that coordinate.

06:25 A, 1.5.

Ah, 1.5.

06:25 Ahora si.

Now that's right.

06:27 Where are you guys?

06:28 No sabemos que vamos a hacer.

We don't know what we're going to do.

06:30 ¿No saben que?

You don't know what?

06:31 No encontramos.

We didn't find it.

06:32 ¿Cuál?

Which one?

06:33 Revisamos, que nos ayude.

We looked it over, help us.

06:35 ¿Qué pasa en la otra? No. No quiero ver una tabla completa. ¿Qué dije?

What happened with the other one? No. I don't want to see a complete table. What did I say?

06:40 No hace falta hacer todo esto.

That we don't need to do all this.

06:42 Well, no fue la intención.

Well, it wasn't the intention.

06:44 ... como es de aquí?

How is it over here?

06:47 this one is 12.5.

06:48 ¿Por qué no nos avisaste?

Why didn't you warn us?

06:52 Bueno. Is this 12? Did you get that with a rule?

06:56 Yeah!

06:57 Ok.

06:58 You guys stopped working together, I think.

07:01 No, we didn't! We're working together.

07:03 I know, but they didn't understand what to do here.

07:06 So, quien puede explicar como empezar este problema?

So, who can explain how to start this problem?

07:08 Yo.

Me.

07:09 ¿Cómo?

How?

07:11 Buscando la x,

Looking for x.

07:12 Muy bien..

Very good.

07:13 Ya cuando la llevo, bajarlo aquí, como, por la x, ¿no? Para encontrarlo en la y.

And when I've got it, I put it down here, like, for x, right? To find the y.

07:19 Ok. Lo que dijiste es, lo dijiste mal, pero parece que tu idea esta bien. Dijiste que tiene que encontrar el x-intercept,

Ok. What you said is... you said it incorrectly, but it seems that your idea is good. You said that you need to find the x-intercept.

07:27 Can I interrupt you for a second?

07:30 Ok. No van a encontrar el x-intercept. Los x-intercepts ya están aquí. Pero, a ¿qué te referias? ¿Qué tiene que encontrar?

Ok, you're not going to find the x-intercept. The x-intercepts are already here. But, what are you referring to? What do you have to find?

07:38 Quiero las coordenadas del vertex. ¿Cómo lo van a hacer? Here, move your hand. Para que alguien puede ver.

I want the coordinates of the vertex. How are you going to do it? Here. Move your hand, so that others can see.

07:44 Buscar al x. Find the x, right?

Look for x. Find the x, right?

07:45 What do you mean? X?

07:47 The number, here?

07:48 Oh, so the x coordinate of the vertex. Ok. Asi que este valor de x, ¿cómo lo van a encontrar?

Oh, so the x coordinate of the vertex. Ok. So that this value of x, how are you going to find it?

07:55 Contando lo de aca. X menos 1,

Counting the one from here. X minus 1.

07:59 No lo hice en escala.

I didn't do it in a scale.

08:00 ¿Por qué? 1, 2, 3.

Why? 1,2,3.

08:05 Because,

08:06 El numero en medio de estos dos. Right? You said the number in the middle of these.

The number in the middle of these two. Right? You said the number is in the middle of these.

08:10 De aquí,

From here,

08:12 No lo hice en una escala.

I didn't do it in a scale.

08:13 No mas en la medida, no mas a la medida.

Just in the measurement, just in the measurement.

08:16 Aja.

A ha.

08:18 El numero en medio de estos dos números.

The number in the middle of these two numbers.

08:20 Which is...

08:21 This..

08:24 Es el numero en medio de 1 a... 5.

It's the number in the middle of 1 to... 5.

08:29 Es como estamos decidiendo antes de encontrar el median. ¿Verdad? Encuentren el median.

It's like we're deciding before we find the median. Right? Find the median.

08:35 3 mas... 3 o 2. 1, 2. ¿Ya ves? Te dije.

3 plus, 3 or 2. 1, 2. You see? I told you.

08:40 Ok. ¿Estan de acuerdo? Alfonso? Ok. Y ahora que, ¿Eduardo?

Ok. Are you in agreement? Alfonso? Ok. And now what, Eduardo?

08:45 Mete al 2 al..equation.

Put the 2 in the ... equation.

08:48 Mueve la mano para Melina pueda..

Move your hand so that Melina can...

08:51 Ya! Ya!

That's good!

08:52 ¿Y ahora?

And now?

08:54 Le metes el 2 al... the x right here. Substitute the 2 to the x.

You put the 2 on... the x right here. Substitute the 2 for the x.

09:01 Ya te digo.

I'm telling you.

09:03 And it gets -9.

09:04 2 por 2...

2 times 2...

09:07 22. Ok. Pero Eduardo ya les dijo, son -9.

22. Ok. But Eduardo already told you, they're -9.

09:13 Please finish what you're doing.

09:15 Estamos bien. Negativo 9.

We're fine. Negative 9.

09:17 Ok. Ok, eso... can I interrupt you, Eduardo?

09:19 Este, por negativo, sale... a positivo.

This, times a negative, comes out... a positive.

09:24 No puede ser numero positivo. What are you talking about? Ok. Pay attention.

It can't be a positive number. What are you talking about? Ok. Pay attention.

09:30 Ok. Eso quiere decir que no hace falta encontrar hacer una tabla grande.

Ok. This means that you don't need to find... to make a large table.

09:33 Entonces, esta bien, ya?

So, that's good, right?

09:35 ¡Ya!

Yep!

09:36 No, de aquí, del papel.

No, from here, from the paper.

09:37 Que dice. ¿Y? Can you pay attention? No hace falta hacer una tabla grande. Ok? Así que para la B, no hace falta encontrar todos los valores intermedios.

What does it say. And? Can you pay attention? You don't need a large table. Ok? So for B, you don't need to find all the intermediate values.

09:49 Pues sí, para sacarlos. Para ver.

But yes, to find those. To see.

09:51 ¡No hace falta!

It's not required!

09:52 Entonces...

So then...

09:53 Porque aquí no encontraron el valor de 0, de 1, de 3, de 4. Solo encontraron el valor de x al vértice, y luego la coordenada y.

Because here you didn't find the value of 0, of 1, of 3, of 4. You only found the value of x at the vertex, and then the y coordinate.

10:03 Mmm.

10:04 Y el dos, ¿ese? La coordenada de x, lo encontró Eduardo... a base de los x-intercepts.

And the two, that one? The x coordinate, that Eduardo found, based on the x-intercepts.

10:13 Es cierto? Ok, así que aquí, ¿adónde están los x-intercepts?

Is that right? Ok, so from here, where are the x-intercepts?

10:17 Aquí.

Here.

10:18 No. Estos no son las coordenadas de x, los x-intercepts. Los circulan, por favor.

No. These aren't the x-coordinates, the x-intercepts. Circle them, please.

10:24 Aja. Así que, ¿cuál es el número que está en medio de 3 y -1?

A ha. So that, what is the number in the middle of 3 and negative 1?

10:33 No, es cierto... 2.

No, it's right, 2.

10:35 Hm mm.

Hm mm.

10:36 De 2.5?

Of 2.5?

10:40 -2?

-2?

10:42 Es 1!

It's 1!

10:45 1, le dije, Cabana!

1, I told you, Cabana!

10:47 Así que no hace falta escribir todos estos valores, el 1 es suficiente.

So you don't need to write all these values, 1 is sufficient.

10:50 Ok.

Ok.

10:51 Lo meto en la ecuación, 1 menos 2?

Should I put it in the equation, 1 minus 2?

10:56 Mm hm.

Mm hm.