

Jan 16th 10:16:58 pm

Welcome back 😊 Amber.

Jan 16th 10:17:00 pm

I'm finding you a tutor ASAP.

Jan 16th 10:17:03 pm

BTW, the tutor will spend a minute reviewing your problem so when the session begins, you can quickly jump into it! Remember the tutor might still have questions about where and why you are stuck.

Jan 16th 10:17:05 pm

TUTOR FOUND, NOW REVIEWING PROBLEM AT NO CHARGE

Jan 16th 10:17:30 pm

SESSION STARTED AT 4:17 PM

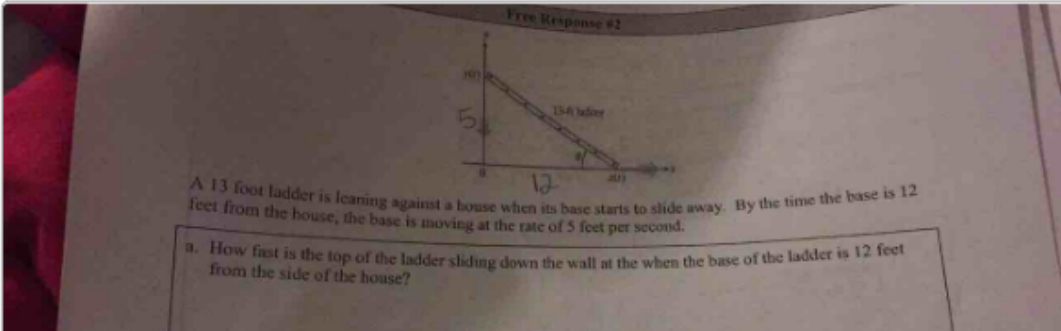
Jan 16th 10:17:40 pm

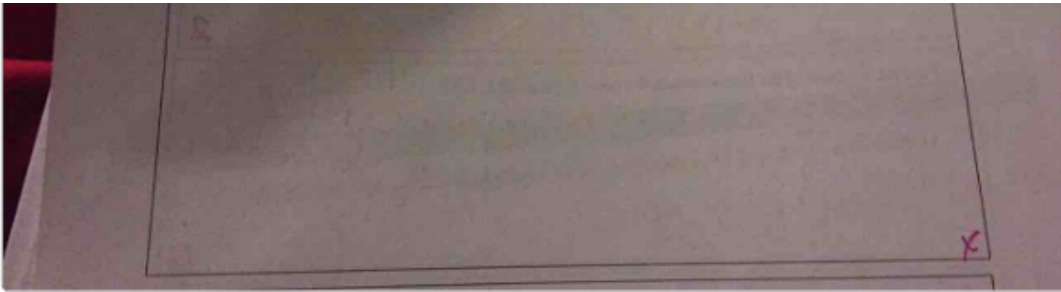
Hey there Amber!

Jan 16th 10:17:44 pm

Can you send a clearer image?

Jan 16th 10:17:52 pm





Jan 16th 10:18:14 pm

Is this one better?

Jan 16th 10:18:17 pm

Yes, thank you!

Jan 16th 10:18:29 pm

✓ A1: Confirm your understanding of the student's problem

One moment as I read it through.

Jan 16th 10:18:37 pm

Alright! Let's start!

Jan 16th 10:20:12 pm

✓ A1: Determine progress

Can you tell me what you have tried on this so far?

Jan 16th 10:20:20 pm

I am really not sure how to do these triangle problems.. I'm never sure whether to use sine or cosine

Jan 16th 10:21:03 pm

Alright! I see.

Jan 16th 10:21:14 pm

✓ B2: Tutor builds on student's thoughts

We won't need those until the second part.

Jan 16th 10:21:27 pm

✓ A1: Gauge student's existing knowledge

Any thoughts on how to approach the first part?

Jan 16th 10:21:36 pm

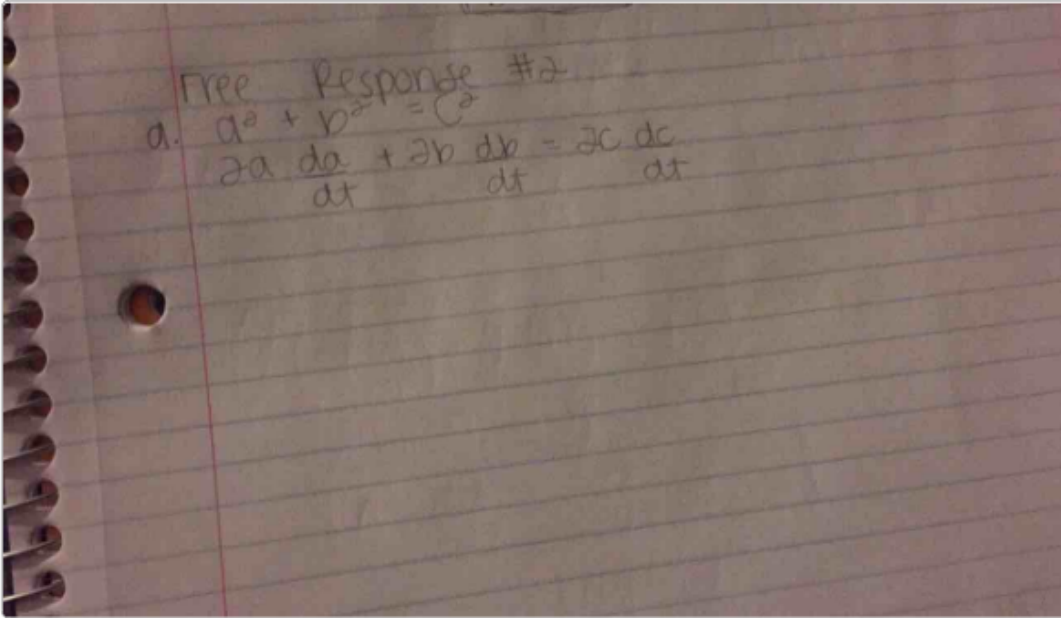
The Pythagorean theorem?

Jan 16th 10:21:58 pm

✓ A1: Probe the student's understanding of concepts

That's correct! And how will we use that?

Jan 16th 10:22:11 pm



✓ C3: Guiding question

✓ C2: Positive language

✓ C3: Guiding question

✓ C1: Adapts explanation to student's confusion

That is correct!

Jan 16th 10:23:18 pm

And what are the rates of change that we have?

Jan 16th 10:23:37 pm

Well, what is the rate of change we know?*

Jan 16th 10:24:03 pm

That's correct!

Jan 16th 10:24:06 pm

And which rate of change are we trying to find?

Jan 16th 10:24:16 pm

Are you sure?

Jan 16th 10:24:46 pm

Tell me the rate in words?

Jan 16th 10:24:51 pm

That's correct! So which side is that?

Jan 16th 10:25:18 pm

Hmm, let's think about this again.

Jan 16th 10:25:59 pm

Is the length of the ladder changing?

Jan 16th 10:26:20 pm

Right! So then it can't be c, so c is constant at 13.

Jan 16th 10:26:41 pm

Jan 16th 10:23:00 pm

?

Jan 16th 10:23:02 pm

We know the base is moving at five feet per swcond

Jan 16th 10:23:54 pm

Dc/dt

Jan 16th 10:24:37 pm

I believe

Jan 16th 10:24:39 pm

We're trying to find how fast the ladder is sliding down the wal

Jan 16th 10:25:09 pm

Wall*

Jan 16th 10:25:11 pm

The wall is a, the ladder is c

Jan 16th 10:25:39 pm

No

Jan 16th 10:26:24 pm

Where would we find the distance along which it slides on the wall?

Jan 16th 10:26:53 pm

So we're trying to find da/dt

Jan 16th 10:27:06 pm

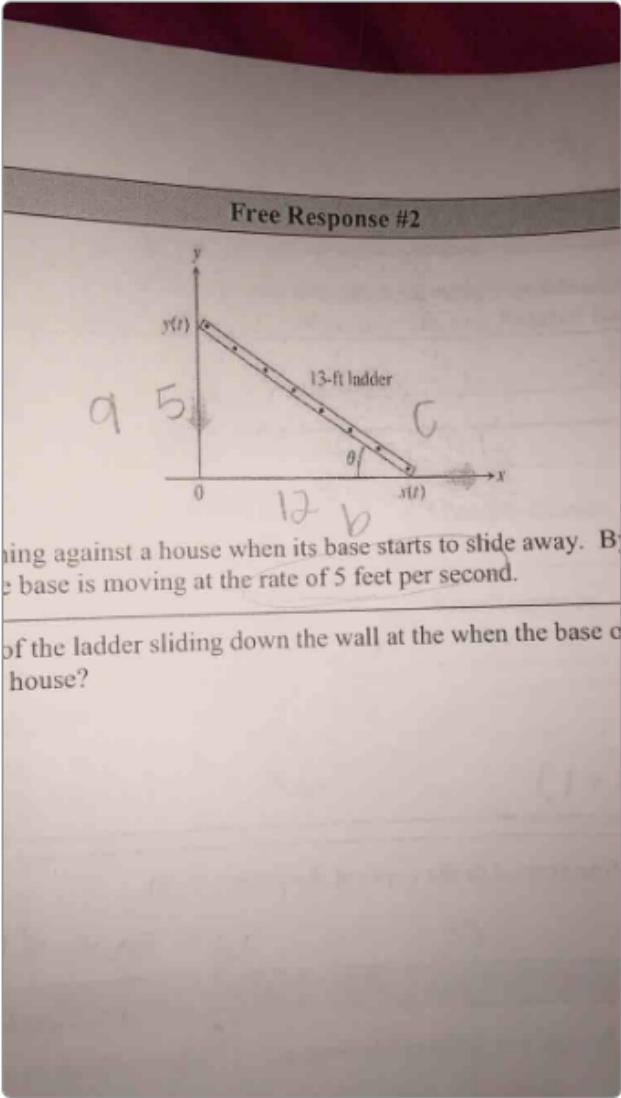
Well, let's assign what is our b and our c .

Jan 16th 10:27:39 pm

Sorry, b and a .

Jan 16th 10:27:43 pm

✓ Tutor quickly corrects typo



Jan 16th 10:27:54 pm

This is what I hav

Jan 16th 10:27:57 pm

Have*

Jan 16th 10:28:00 pm

Ok great!

Jan 16th 10:28:10 pm

In that case then, we are trying to find da/dt .

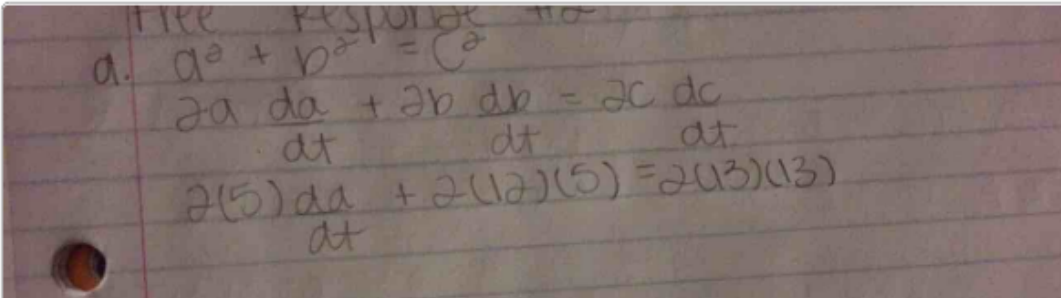
Jan 16th 10:28:25 pm

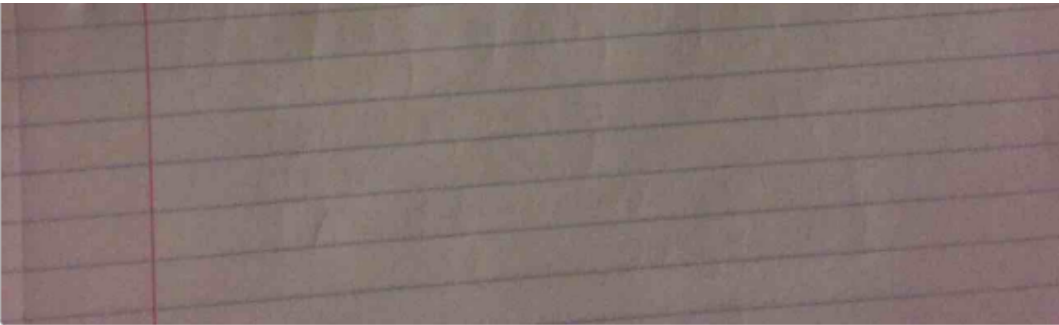
Can you plug in the values that we know?

Jan 16th 10:28:34 pm

✓ B1: Confirms that the student's response was correct

✓ C3: Encourage student to take the first step





✓ C2: Reassure the student

Very close!

Jan 16th 10:29:00 pm

Let's start on the right.

Jan 16th 10:29:04 pm

Can you remind me what we said about the length of the ladder changing?

Jan 16th 10:29:18 pm

✓ C1: Adapt instruction to student gap

That's correct! So if it doesn't not change, what would be dc/dt ?

Jan 16th 10:29:45 pm

Hmm, not quite. Remember that there is *no* change.

Jan 16th 10:30:15 pm

How do we represent nothing in math?

Jan 16th 10:30:23 pm

That's correct!

Jan 16th 10:30:39 pm

✓ C3: Encourage student to take step independently

Can you solve for da/dt now?

Jan 16th 10:30:48 pm

✓ C3: Invite student input

That's correct! And what are the units?

Jan 16th 10:31:41 pm

✓ C2: Positive language

That's correct! :)

Jan 16th 10:28:39 pm

I believe this is correct

Jan 16th 10:28:47 pm

It doesn't. It's constant

Jan 16th 10:29:27 pm

1?

Jan 16th 10:29:54 pm

So 13 still

Jan 16th 10:30:23 pm

Oh, 0

Jan 16th 10:30:35 pm

-12

Jan 16th 10:31:30 pm

Feet per second

Jan 16th 10:31:54 pm

Jan 16th 10:32:11 pm

Is that all clear?

Jan 16th 10:32:24 pm

Yes ma'am. Thanks for all your help!

Jan 16th 10:32:32 pm

You're most welcome! Would you like to do the other part?

Jan 16th 10:32:45 pm

If you have time, please.

Jan 16th 10:32:54 pm

Sure thing!

Jan 16th 10:32:58 pm

Any thoughts on this one?

Jan 16th 10:33:11 pm

Using sine or cosine of theta could work either way I believe

Jan 16th 10:33:52 pm

That is correct! Which one would you like us to use?

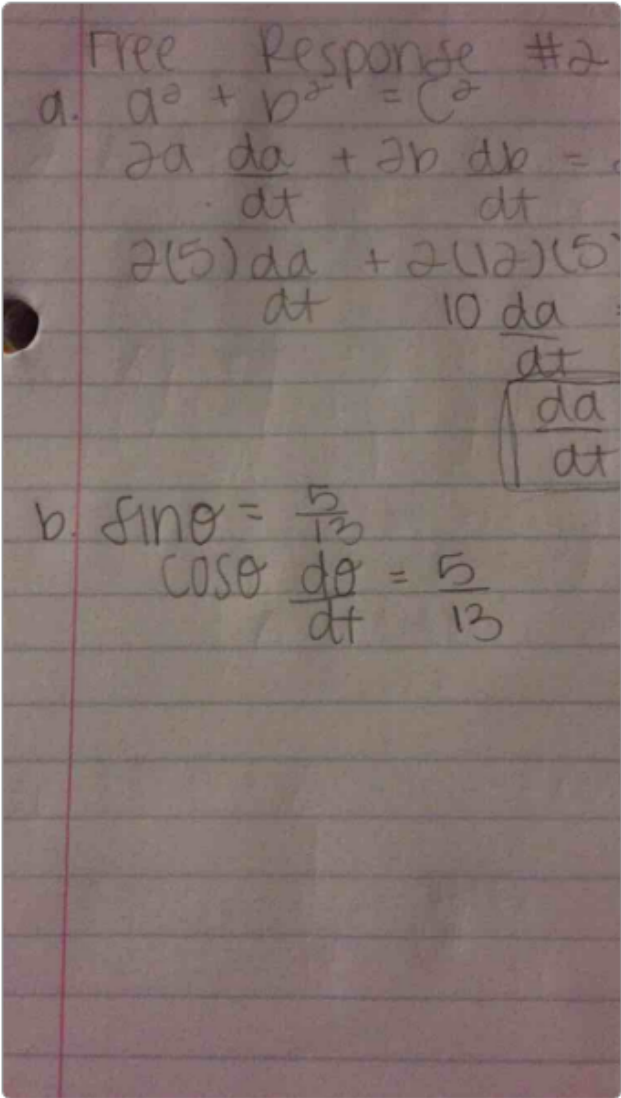
Jan 16th 10:34:36 pm

Sine

Jan 16th 10:34:43 pm

Alright! What would the ratio look like?

Jan 16th 10:34:57 pm



Jan 16th 10:35:34 pm

I believe

Jan 16th 10:35:40 pm

Hmm, I see what you did there but we also need a variable on the right or else when we differentiate 5/13 we will get 0.

Jan 16th 10:36:24 pm

So we need to make that y/13.

Note: Ideally the tutor would have stuck with using "a" instead of "y" to avoid confusion

Jan 16th 10:36:38 pm

✓ C1: Check with the student to ensure understanding

Is that clear?

Jan 16th 10:36:43 pm

Yes

Jan 16th 10:37:07 pm

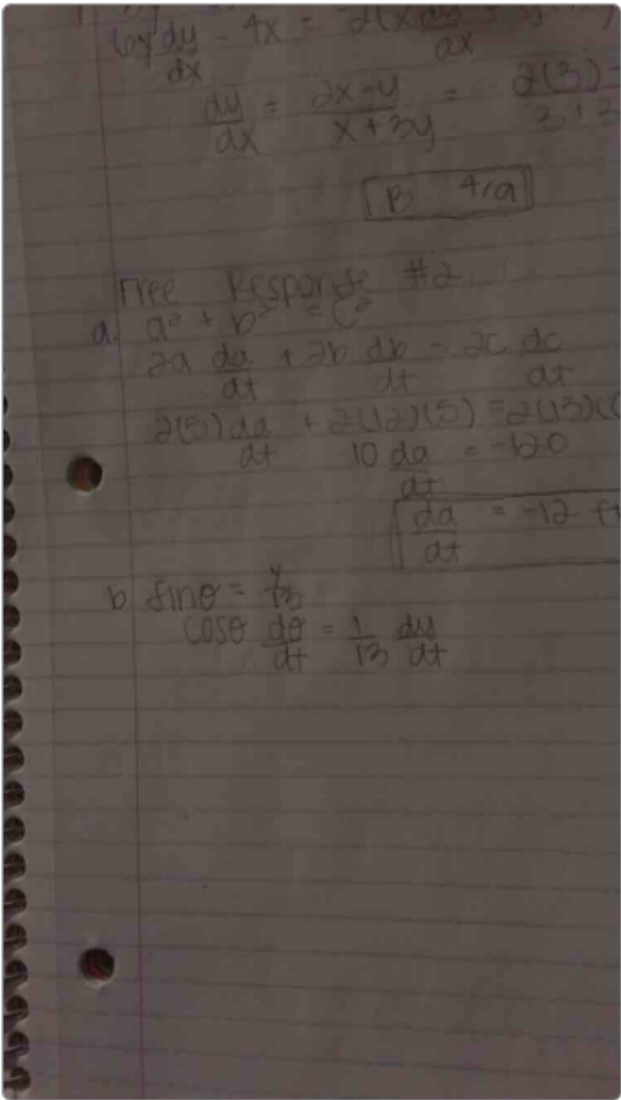
Great!

Jan 16th 10:37:16 pm

✓ C3: Invite student to proceed independently

Can you try that correction now and let me see your work?

Jan 16th 10:37:29 pm



Jan 16th 10:37:42 pm

✓ C2: Positive language

That is correct!

Jan 16th 10:38:26 pm

✓ C3: Encourage student to take step independently

Can you solve now for dθ/dt?

Jan 16th 10:38:45 pm

Is dy/dt equal to da/dt in the previous question we solved?

Jan 16th 10:39:49 pm

That's correct!

Jan 16th 10:40:01 pm

✓ C2: Encouraging words / punctuation

That's correct!

Jan 16th 10:41:05 pm

Good job! :)

Jan 16th 10:41:08 pm

So -1?

Jan 16th 10:40:59 pm

Thanks for all the help!

Jan 16th 10:41:15 pm

✓ C3: Invite student input

You're welcome! Do you know what the units are for that one?

Jan 16th 10:41:27 pm

Radians per second?

Jan 16th 10:41:40 pm

Or minute

Jan 16th 10:41:43 pm

Radians per second is correct.

Jan 16th 10:41:57 pm

Thank you!

Jan 16th 10:42:03 pm

✓ *B2: Tutor builds on student's thoughts*

Since the other units that we worked with were in seconds.

Jan 16th 10:42:08 pm

You're welcome!

Jan 16th 10:42:13 pm

✓ *Tutor checks to see if the student needs further help*

Do you need more help?

Jan 16th 10:42:17 pm

No ma'am. Thanks for your time!

Jan 16th 10:42:32 pm

✓ *Conclusion: Tutor thanks student for using Yup*

You're most welcome! Thank you for using Yup! :)

Jan 16th 10:42:40 pm