

Lurch Help for Students

Four easy steps to get Lurch to check your work

Lurch is a math word processor that can check your work. Suppose you have typed the following sentence in your proof:

Since $1 < 2$ and $2 < 3$ we know that $1 < 3$ by transitivity.

How can you ask Lurch to check if you are correct?

1 Mark the math you want to check as *Meaningful*.

Select $1 < 3$ and press CTRL+[to get this:

Since $1 < 2$ and $2 < 3$ we know that $\overbrace{1 < 3}^{\text{expression}}$ by transitivity.

2 Mark the premises it follows from as *Meaningful*.

Select $1 < 2$ and press CTRL+[. Then select $2 < 3$ and press CTRL+[.

Since $\overbrace{1 < 2}^{\text{expression}}$ and $2 < 3$ we know that $1 < 3$ by transitivity.

Since $1 < 2$ and $\overbrace{2 < 3}^{\text{expression}}$ we know that $1 < 3$ by transitivity.

3 Mark the *Reason*.

Select 'transitivity' and press CTRL+;.

Since $1 < 2$ and $2 < 3$ we know that $1 < 3$ by $\overbrace{\text{transitivity}}^{\text{reason}}$

4 Turn on *Validation*.

Press CTRL+0.

Since $1 < 2$  and $2 < 3$  we know that $1 < 3$  by transitivity.

The green icon indicates that $1 < 3$ is justified correctly, and the yellow icons indicate that the two statements $1 < 2$ and $2 < 3$ are used to justify it.

That's it!

For more information

This only illustrates a tiny portion of the functionality available in Lurch. We have only scratched the surface of the features that are available in this extremely simple and brief example. For more information try one of the following.

- [Watch the Lurch Introductory Videos](#)
See Lurch in action with these video demonstrations.
- [Read the Instructor Guide](#)
It's a brief introduction intended for instructors and students who want to make their own rule definitions.
- [Take the Lurch Tutorial](#)
First time user? No problem. Start here!
- [Read the Advanced Users Guide](#) - This contains all of the nitty gritty details about how Lurch works for the extreme Lurch fan.
- [Visit the Lurch Website](#)
It contains everything from how to get involved to the Lurch source code itself.
- [Join the Lurch email discussion forum](#)
As mentioned above, we hope it will become an online community of professors interested in this software and using it in their courses.
- [Contact the authors](#)
We would love to hear from you and answer any questions you might have!