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Accessible Equations and Other STEM Content

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Accessible Equations and STEM Content

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Office of Accessibility Resources

What are accessibility concerns for formulae and STEM content?

When digital content is provided in an accessible format, it is easy for an assistive technology tool to:

- Read Content Aloud
- Produce Content in Braille
- Adjust the Font Size and Visibility of Content

Many students rely on strategies like these to interact with digital content. With the tools available at UNLV, it is possible to produce WebCampus content, Word Documents, and PDFs which are accessible to students with disabilities without the need for the student to make additional modifications, and beyond disabilities, accessible content adapts to different presentation modes, such as the smaller screens gaining popularity in our mobile world.

How it Benefits Students

Did you know that some learning disabilities, like those affecting reading, memory attention, can affect students specifically when reading math content such as equations[1]? Having content read aloud, by an educator or a software, is one of the most common learning modifications used in the classroom[2]. And beyond disabilities, accessible content adapts to different presentation modes, such as the smaller screens gaining popularity in our mobile world[3].

Wherever an equation, formula, graph, or diagram is important enough to share with students, use the tools available to make it accessible to all students, regardless of disability status.
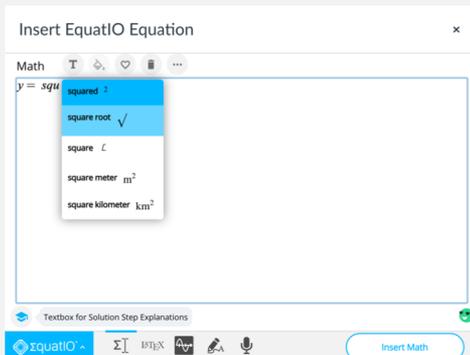
Create equations with typing, search, handwriting, voice, LaTeX, or whatever method is most convenient.

How to Create Equations/Formulas

Option 1: Use EquatIO in Canvas to create and place accessible equations, formulae, and even graphs, complete with support for assistive technology automatically built-in!

Option 2: Use the Equation Editor in Microsoft Word to create equations powered by MathType.

Option 3: Install EquatIO on any computer and use the screenshot option to detect the Equations in legacy documents and convert them to editable, accessible formats, free for UNLV Faculty and Staff.

Bonus: Allow students to "show their work" on math assignments online with EquatIO, so they can create equations by typing, handwriting, or even speaking!
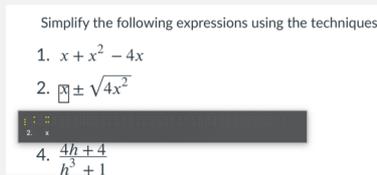
Students can hear equations out loud, read them in braille, or change the font size and visibility.

Resources and Where to Find Them

- Support and training for creating accessible learning materials offered by the Office of Accessibility Resources
- Canvas and Microsoft Word supported by Office of Information Technology
- EquatIO math software has support videos and information available online.

References

1. Math and Learning Disabilities by David C. Geary
2. Common Accommodations and Modifications in School by Amanda Morin
3. More Students Rely On Mobile Devices to Complete Online Classes by Eli Zimmerman

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