

Example of Blind Interface for Algebra By Hand(TM)

After navigating to a problem on our worksheet, we simply press the Down arrow to hear what we need to prove.

Prove that the solution to this equation is x is equal to 3.

After listening to our target, we press the Right arrow to hear a description of what is given in the problem.

The problem statement is $5x$ plus 7 is equal to 22.

Suppose we are really stumped about what we should do first to solve this problem. If we were to press the Question Mark key on the keyboard, we'd hear the following hint.

Subtract the term 7 which is the last term in the left-hand side of this equation from the term 22, which is the only term in the right-hand side of this equation.

But if we don't need the hint, we can drill down in the equation by pressing the Down arrow to hear a description of the left-hand side of this equation.

The left-hand side of this equation is $5x$ plus 7.

We want the second of these terms. So we first press the Down arrow again to get the first term.

The first term in the left-hand side of this equation is $5x$.

Now we press the Right arrow to get the second term.

The second and last term in the left-hand side of this equation is plus 7.

This is the term upon which we would like to operate. Therefore, we select this term by hitting the Enter key on the keyboard.

There are four possible operations for this selection. Press the Right arrow to hear the options.

Now we press the Right arrow.

Subtract this term in the left hand side of this equation from both sides of this equation.

This is exactly what we want to do with this term, so we pressed the Enter key again.

There are three possible options for this operation. Press the Right arrow to hear options for this operation.

Now we press the Right arrow.

Place this term just before 22, which is the only term in the right-hand side of this equation.

This is not what we want to do. So we go to the next option by pressing the Right arrow key again.

Subtract 7 from 22 on the other side of the equation.

This is what we want to do. So we press the Enter key.

Currently your last step for this problem is $5x$ is equal to 15.

As you can hear, we have generated a new step and are halfway to our solution. We need to divide both sides of the equation by 5. So to do this, we press the Down arrow to dive into the left-hand side of this equation.

The left-hand side of this equation is $5x$.

Again, we press the Down arrow to access the first factor, 5, in this term.

The first factor in this term is 5.

Now we can select this factor by pressing the Enter key.

There are two possible operations for this selection. Press the Right arrow to hear the options.

As directed, we press the right arrow.

Divide both sides of this equation by the constant 5.

Again, this is exactly what we want to do. So we press the Enter key.

Currently your last step for this problem is x is equal to 3. Congratulations. You have the correct answer.

Success!