

## Defining and linking variables to a coefficient in a graph (Tutorial E2)

[http://www.atomiclearning.com/k12/en/movie/28241/play\\_window?type=Tutorial&sid=1674](http://www.atomiclearning.com/k12/en/movie/28241/play_window?type=Tutorial&sid=1674)

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You can define and link a variable to a coefficient in a graphed expression. I'll insert the Calculator application into a new

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page by clicking Insert, and then Calculator. Now, click on Page Layout, and choose Layout 2 to choose the split vertical page

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layout. I'll click in the blank work area, and then insert Graphs and Geometry. Now, I'll click in the Calculator application to

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make it active, and then define the variable  $b$  by typing the letter " $b$ ," and then a colon. Next, I'll type " $=6$ ", then press "Enter"

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on the keyboard. This defines the variable " $b$ " as having a value of six. Now, I'll click at the bottom of the Graphs & Geometry

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application Entry line, and enter " $x$ ", then press and hold "Shift" and then the " $6$ " key, then " $2$ ." Now, I'll press the right arrow

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key to move out of the exponent, followed by " $-b \cdot x + 12$ ", and then I'll press "Enter." This graph shows me what the expression  $x^2 - bx + 12$

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looks like when the variable " $b$ " is equal to six. If I want to see the graph for the expression when " $b$ " is equal to

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$-10$  instead, I can go back to the Calculator application by clicking on it, and then type " $b = -10$ ", and then press the Enter key. Notice

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that the graph changes immediately to reflect the new definition of " $b$ ." It's important to note that variables in one problem

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have no relationship with variables in another. In this case, b  
has been defined only within this problem; if I create a new problem

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within this document, b will not have the same definition.

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