

Linking variables in Graphs & Geometry (Tutorial B5)

http://www.atomiclearning.com/k12/en/movie/40765/play_window?type=Tutorial&sid=1674

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You can link variables across multiple applications and views.
To demonstrate this, I'll create a new page by

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clicking Insert, and then choosing Graphs and Geometry.
In this example, I want to measure a circle using real unit

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equivalence. So the plain geometry view is the view I want to
start with. I'll click the Graphs and Geometry View

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button, and choose Plain Geometry View. I'll construct my
circle by clicking Shapes, and then Circle. Now I'll place

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the point of my pencil where I'd like the center of the circle to be,
and then click. Then I'll move away from the

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center until I get the desired radius, and then click again.
To measure the radius, I'll click on Measurement, and then

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Length. And then I'll roll over the center of the circle and click.
Next, I'll roll over any point on the circumference

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of the circle and click again. To store that radius as a
variable, I'll roll my cursor over the radius, and then

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right click. I'll choose Store, and call the variable "R" by
pressing R on the keyboard followed by Enter. Now I'll

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measure the area of the circle by clicking on Measurement
and this time choosing Area. Again, I'll roll over the circumference

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of the circle and click to reveal the area. I'll roll over that area, right click, choose Store, and this time I'll

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call this Area by typing "A-R-E-A", and then pressing Enter. Now let's look at the relationship of the radius and the

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area graphically. I'll click Page Layout, and choose Layout2. If you need to reposition the circle we drew, just click

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in an empty area of a graph and drag it around until you can see the circle. I'll click in the right work area and

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select Graphs and Geometry. This time, I'll leave it in graphing view, and I'll create a point by clicking Points

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and Lines, and then choosing Point. I'll place my cursor in the upper right quadrant and click to create the point.

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I'll reveal the coordinates for that point by clicking Actions and choosing Coordinates and Equations. Next, I'll

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roll over the point and click to place the coordinates in the graph. I'll reposition this graph just like I did

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with the other one, clicking in an empty area on a graph and then drag it around until you can see the positive

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areas of both X and Y, and you can see the coordinates for your point. Now, I'll roll my cursor over the X value for

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my point and right click. I'll choose Link To, and then select the variable I created called "R". Now I've linked



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the two variables; if I change one it also changes the other.
I'll do the same with my Y value by rolling over

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it. Then right clicking. Then selecting Link To, followed by
the variable I created called "Area". Now, I'll go back

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to my circle, and roll over the circumference. I'll resize this
circle by clicking and dragging. Notice that as the radius

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decreases, the area also decreases and my point in the
right graph moves closer to the point .00. When I make the radius

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larger, the area also gets larger and the point moves up and to the right.

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