Algebra 1 – WH name Click here to enter text.  
Classwork – Definitions Exploration date Click here to enter a date. Period Choose an item.

Suppose we want to make an image that had fifty identical, solid red triangles. You would have to write (triangle 50 "solid" "red")(triangle 50 "solid" "red") fifty times! To make matters worse, any change to those triangles would have to be repeated for all fifty expressions! Good programmers know that their effort is better spent elsewhere, so they made sure that programming languages have a way to avoid all that repetition. They write something once, define it as a shortcut in the language, and then use the shortcut wherever they want.

Here’s an example definition that defines shape1shape1 to be a solid red triangle:

(define shape1 (triangle 50 "solid" "red"))

Do this in Wescheme.org:

1. Enter the shape1shape1 definition into the Definitions Window.
   1. Click "Run" to have the computer read that definition.
   2. Type shape1 in the Interactions Window. Did it work?
2. Add a new line to the definitions window, just below the definition of shape1shape1: add a new definition called shape2shape2, and define it to be a solid, blue circle of radius 20. Check it!
3. On the next line, define a new value called ageage to be the number of years old that you are.
4. On the next line, define a new value called eye-color to be the String that represents your eye color.
5. Write a line of code in the Interactions Window that gives a circle with a radius equal to your age and color the same as your eye color. Snip the code and the resulting image here:

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Now…

* Submit this exploration on TurnItIn.com.
* Download the “Unit 3 - definitions assignment” from the wiki and get started!