

Lesson 10: Use Variables

Try It: Practice Activities

Instructions:

Open the "WhiteRabbitProject" project you saved in the previous lesson. You will use this project for all of the practice activities listed below. Download this lesson's project file if you did not complete the previous lesson's Try It activities.

1. Declare a variable.
 1. View the declared "bipedHop" procedure under the Biped class.
 2. Declare a variable in the bipedHop procedure named "hopHeight".
 3. Give hopHeight a value type of DecimalNumber and initialize the variable to .25.
 4. Save the project.
2. Add a variable to a procedure.
 1. Add the variable hopHeight to the bipedHop procedure code so that the bunny and White Rabbit hop up and down .25 meters when the bipedHop procedure is called.
 2. Save the project.
3. Change an initialized value.
 1. Change the initialized value for the hopHeight variable to .5 meters.
 2. Test the animation. The bunny and White Rabbit hop .5 meters up in the air instead of .25 meters.
 3. Save the project.
4. Randomize the value of a variable.
 1. In the bipedHop procedure, change the value of hopHeight to a random number between .25 and .75 meters.
 2. Test the animation. The rabbit and bunny should hop random heights between .25 and .75 meters.
 3. Save the project.

Optional Activities

Complete the following optional practice activities below to continue practicing the concepts you learned in this lesson.

1. Create a new project using the grass template. Set up an initial scene with five bunnies, each different colors. Each bunny should be positioned about one meter apart.
 1. Declare three different procedures to have the bunnies do three exercises together. Examples of procedures could be jumping jacks, hopping up and down, running in place, or doing back flips.
 2. Within each declared procedure, declare a variable that holds the value for the distance arguments. This could be a whole number or decimal number value type.
 3. Assign the variable to one or more distance arguments within a declared procedure and run the animation.
 4. Change the value of the variable, and run the animation again to observe how it changes the bunnies' movements.
 5. Save the project.