Java Fundamentals
2-9: Expressions
Project

This project will progress with you throughout the course. After each lesson there will be more to add until it builds into a complete animation that you can upload to YouTube or export as a local animation file.

Lesson Objectives:

- Create an expression to perform a math operation

- Interpret a math expression

Instructions:

1. Open Alice 3 on your computer.

2. Either using the My Projects tab or the File System tab, browse for and open the Fish_8.a3p file.

3. Using the Save As command from the file menu, rename the file to Fish_9.a3p.

4. If you are not already in the code editor use the Edit Code button to go to the code editor.

   For this lesson you are going to experiment further with expressions in your animation. You have already used expressions to calculate the depth of objects and use that value in distance calculations.

5. You have currently been using a fixed value for the distance the Blue Tang fish swims. You are going to use a built in function with an expression to calculate the distance.

   Drag the getDepth function of the Blue Tang fish onto the distance placeholder value (10)

6. Now click on the getDepth function

7. From the drop down list choose Math, then multiply and Custom Decimal number.
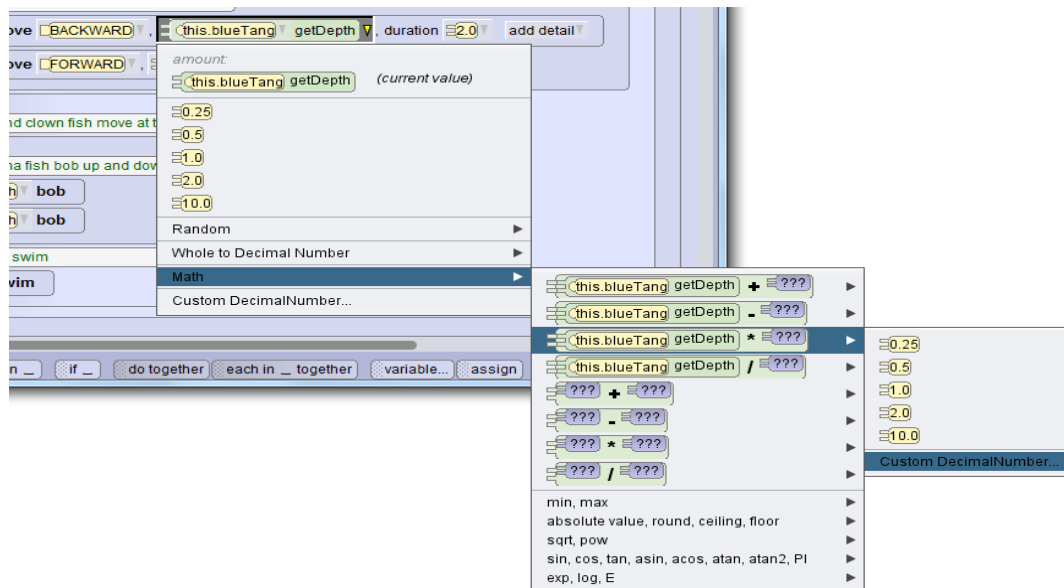
8. Choose 3 as the custom decimal number on the keypad.

9. Your fish should now swim 3 times the length of itself.

10. You will need to change the forward line of code to match the backward code.

11. Run and test your program. If you want to change the value from 3 to something of your choosing then do that via the drop down arrow beside the multiplier value.

12. Save your program.

13. Exit Alice 3.