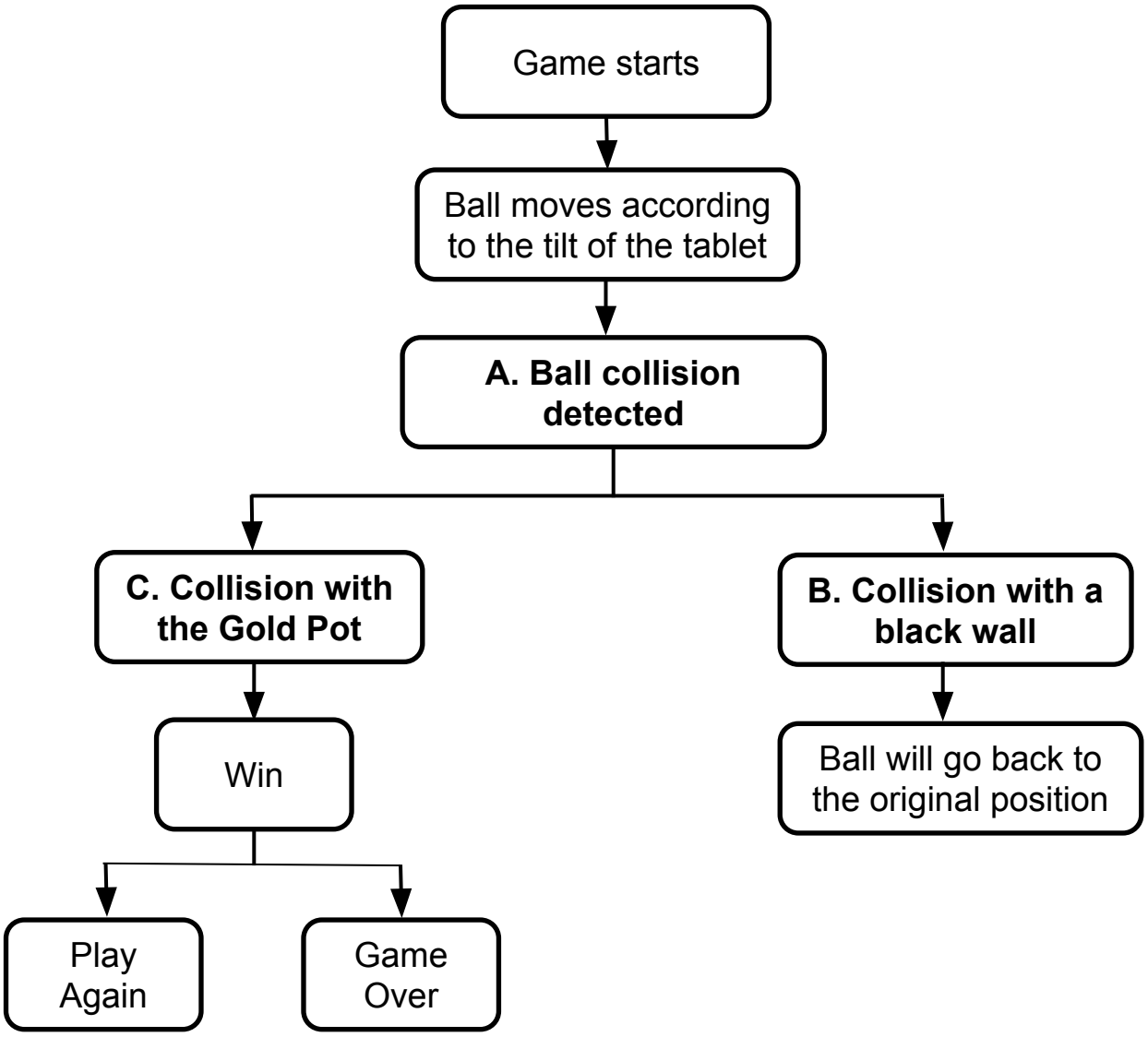
FIND THE GOLD: PART 3

You will now improve the Find the Gold app to check for collision with walls and notify the user when they reach the gold!

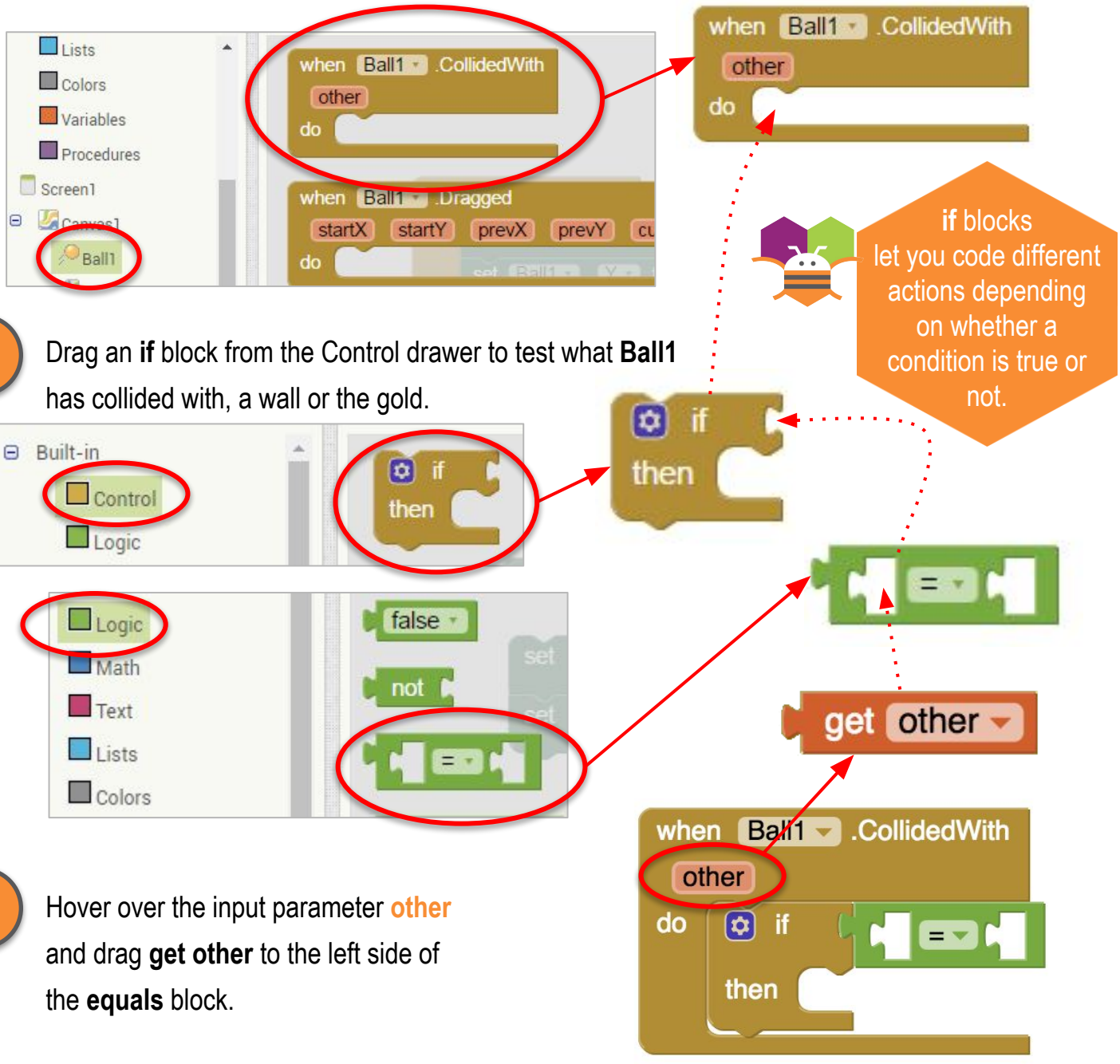
REVIEW

1 Review the diagrams below with your partner. Check that you understand the sequence of steps for the Find the Gold app below.



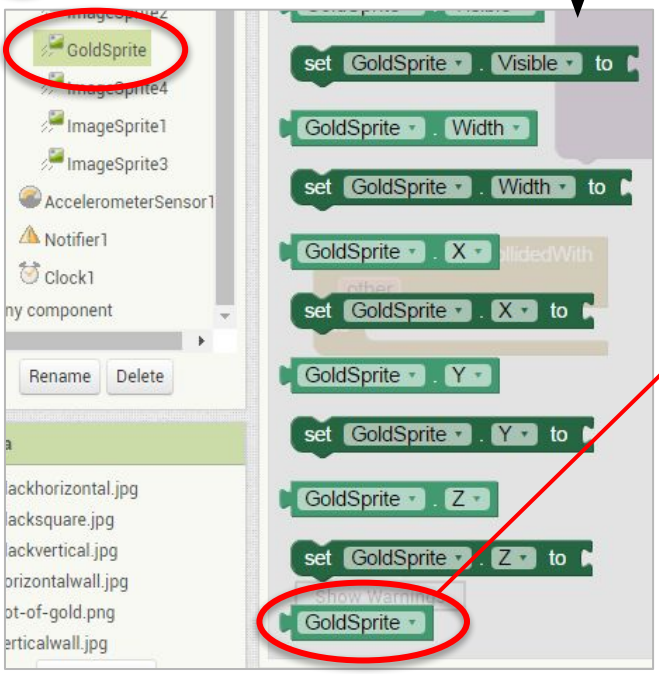
WHEN BALL COLLIDES WITH…

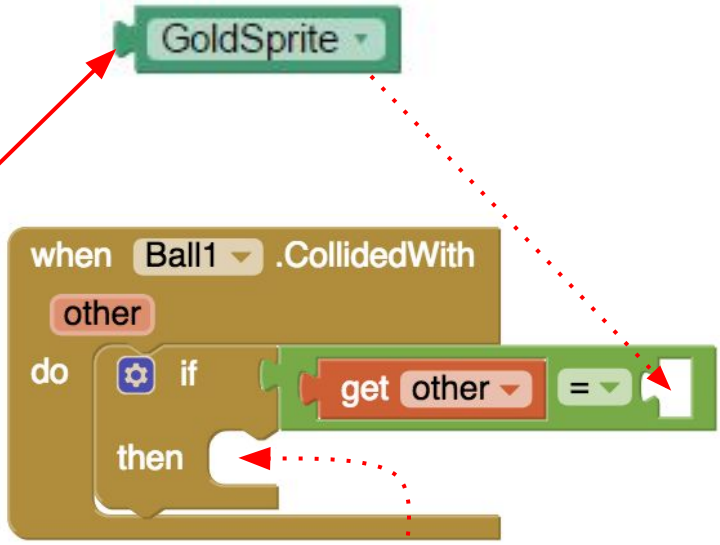
2 Check when the ball collides with the walls or the gold sprite using the **Ball1.CollidedWith** block.



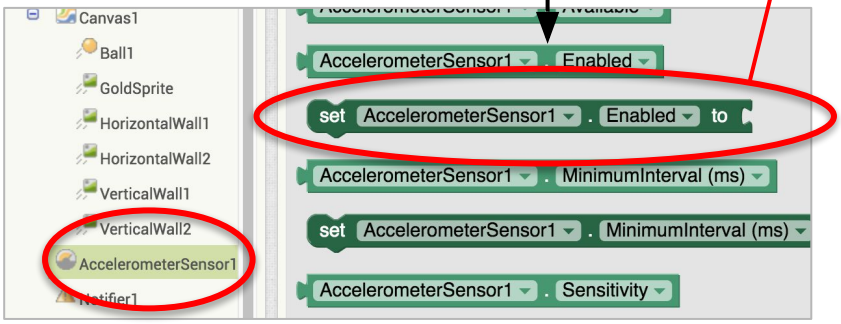
COLLISION (continued)

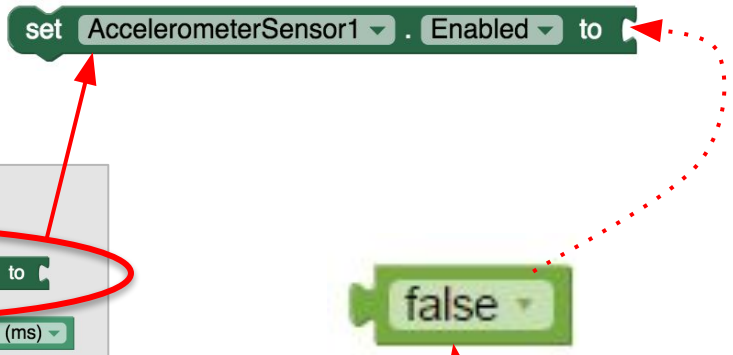
5 Test if **other** is the **GoldSprite**.





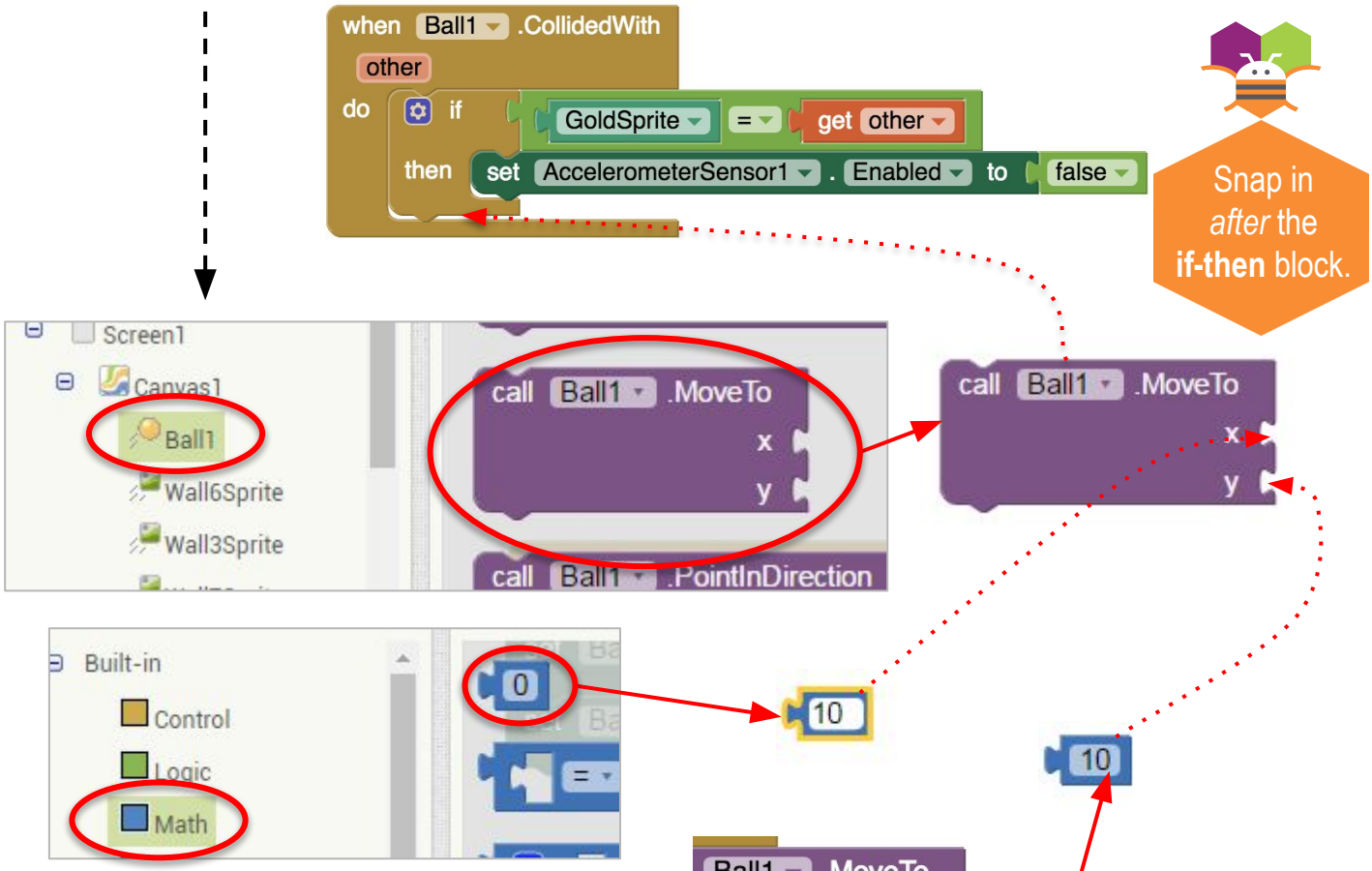
6 If it is the **GoldSprite**, then the game is over, so stop **Ball1** moving by disabling the **AccelerometerSensor**.



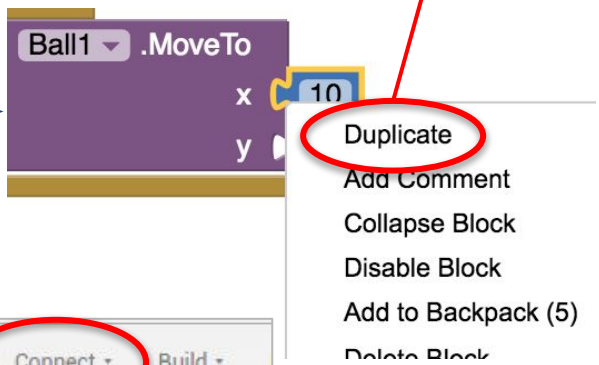


COLLISION (continued)

7 When **Ball1** collides with either a wall or the pot of gold, move it back to its starting position.

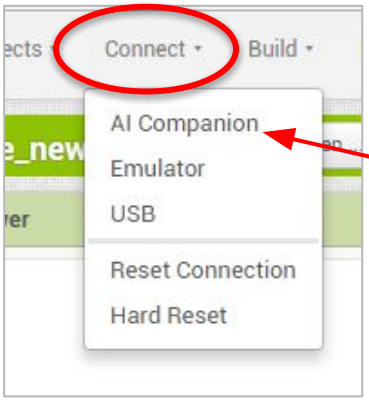


8 Duplicate the **10** block and snap in to the **y** slot.



9 Test with MIT AI2 Companion.

- Does the Ball reset when it touches a wall?
- Does the Ball stop when it reaches the Gold?

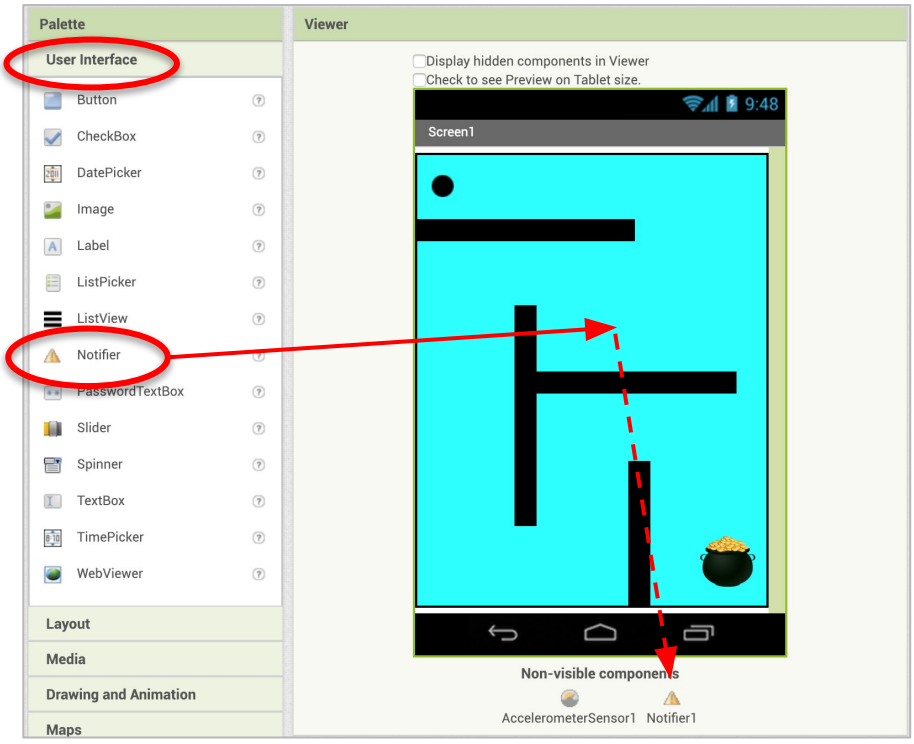


NOTIFIER

When the ball touches the gold sprite, notify the user the game is over and they can play again or quit.

10 Switch to the Designer.

11 Add the **Notifier** component from User Interface drawer.

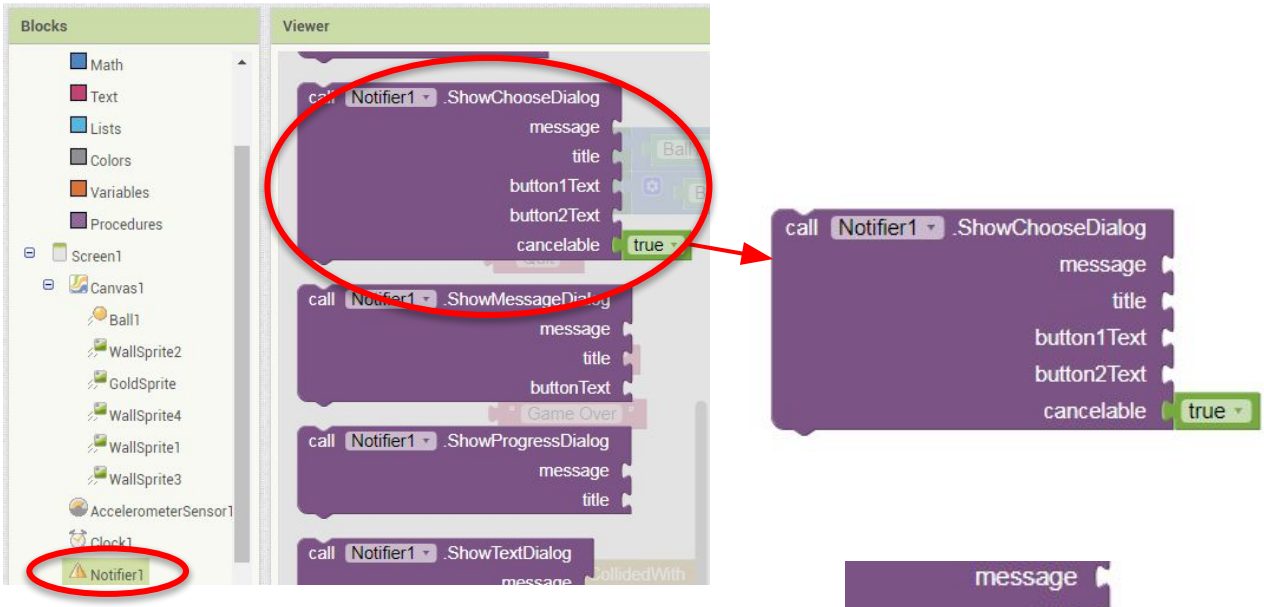


12 And switch back to the Blocks Editor.

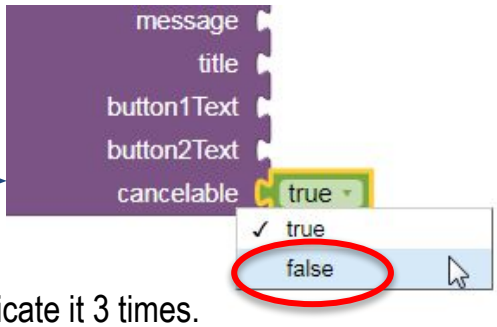
The Notifier is a non-visible component so it drops below the Viewer.

NOTIFIER (continued)

13 Drag out a **ShowChooseDialog** block.

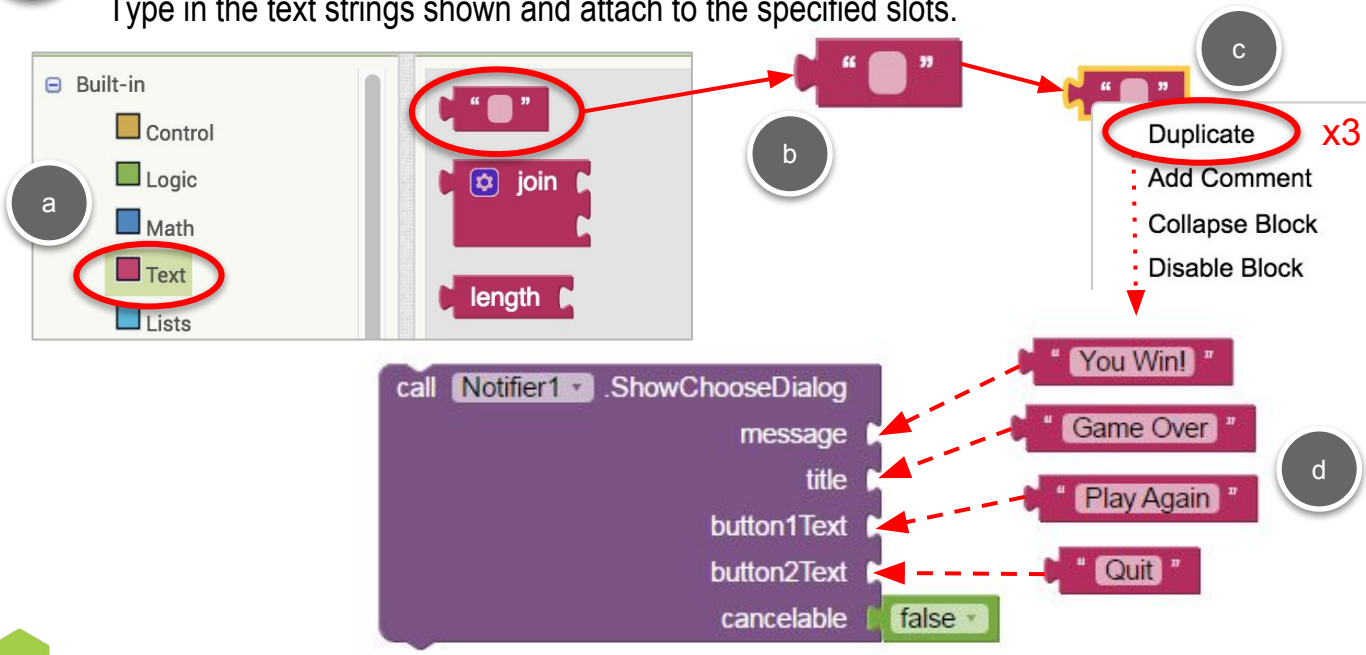


14 Click on the true block and change cancelable to "false".



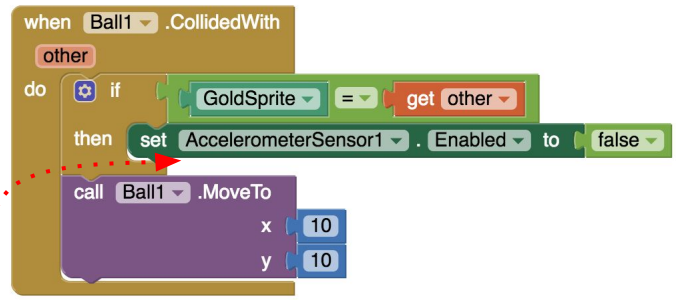
15 Drag out a blank text block from the Text drawer, and duplicate it 3 times.

Type in the text strings shown and attach to the specified slots.

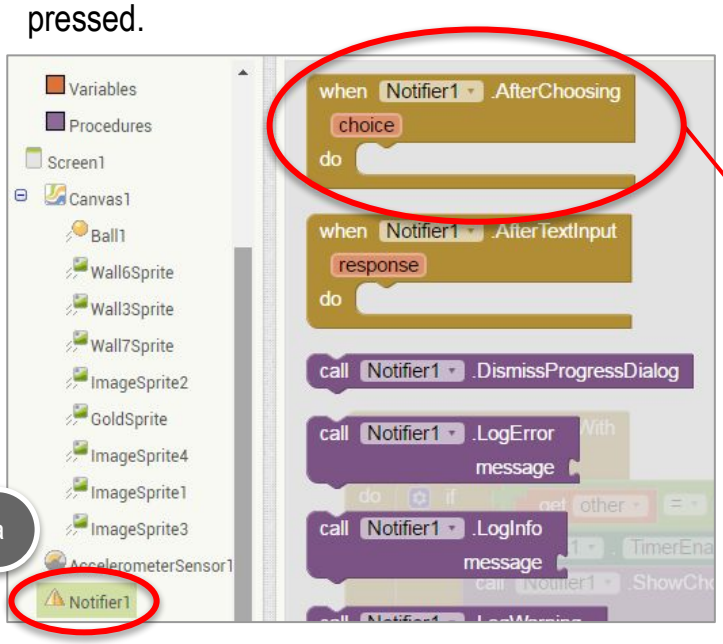


NOTIFIER (continued)

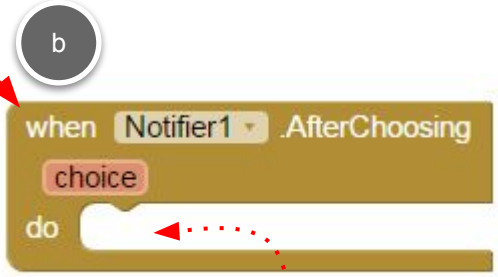
16 Drag the **ShowChooseDialog** block under the **set AcceleratorSensor1.Enabled** block so that a dialog box pops up when **Ball1** collides with **GoldSprite**.

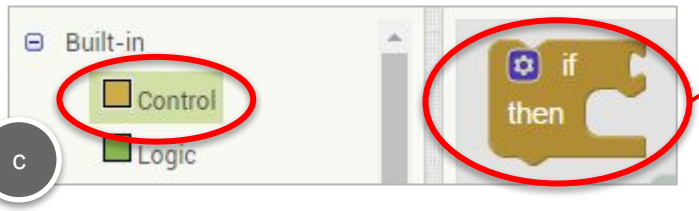


17 The **Notifier1.AfterChoosing** block triggers when the user chooses a button. It needs to test which button was pressed.



a



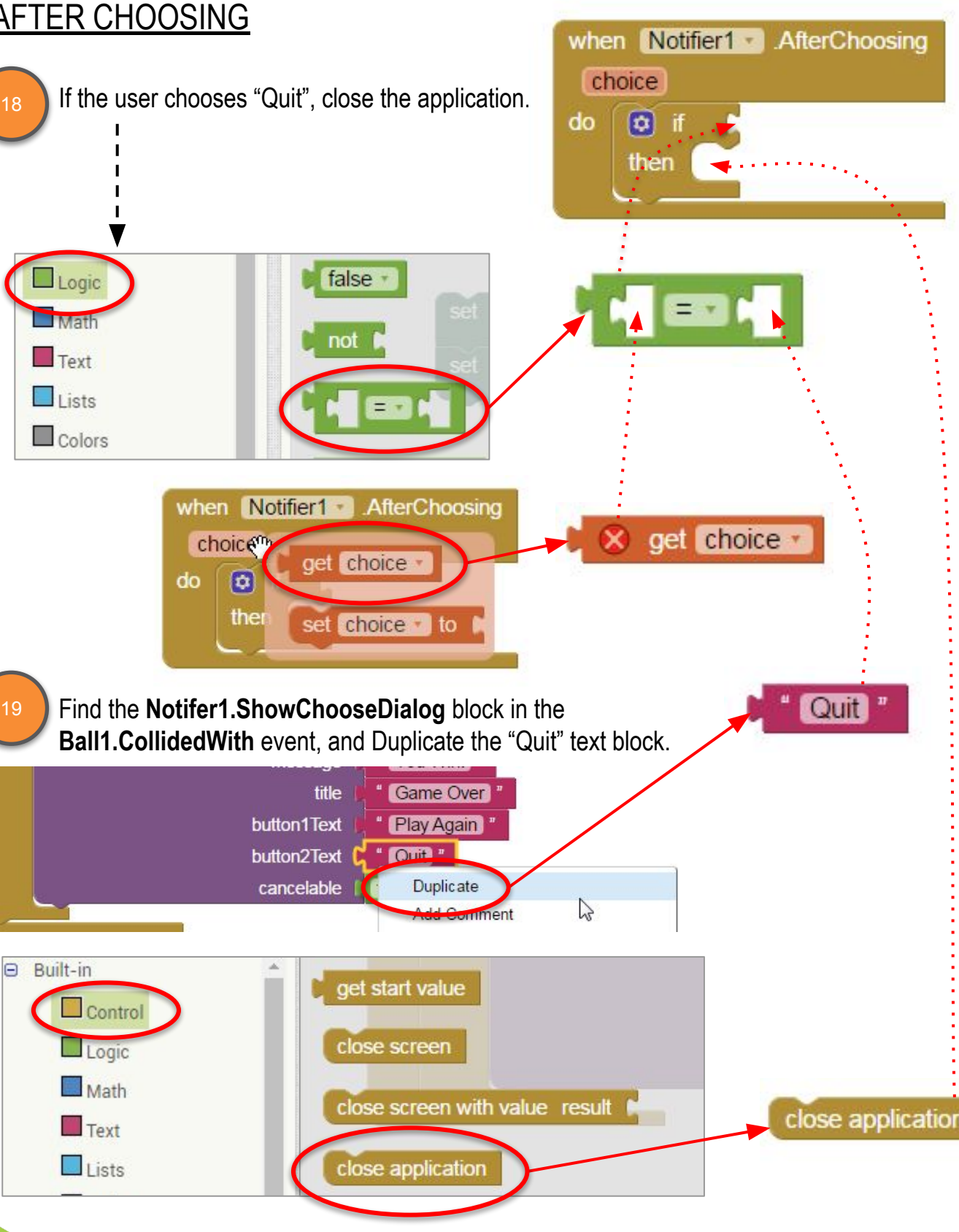


c

d

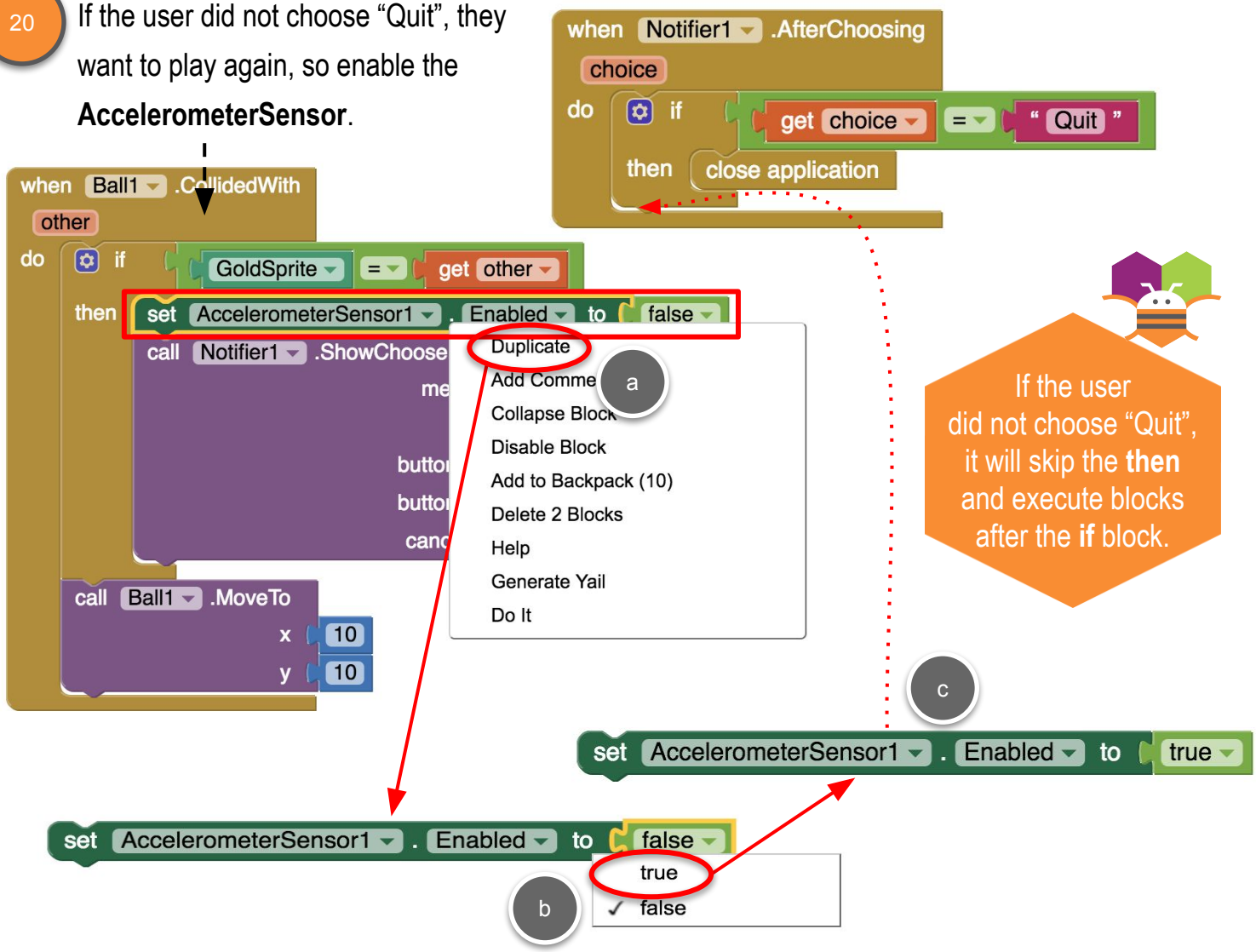
AFTER CHOOSING

18 If the user chooses “Quit”, close the application.

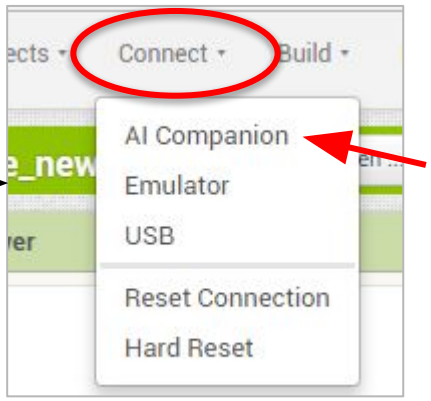


AFTER CHOOSING (continued)

20 If the user did not choose “Quit”, they want to play again, so enable the **AccelerometerSensor**.



21 Finally, test and debug using MIT AI2 Companion.



Choose Ways to Extend Your App

Here are a few features you could add if you want to expand your app

Add scoring - give points when the user reaches the Gold

Add a countdown timer

Add user lives so they get a limited number of chances to reach Gold

What other ideas do you have?

COMPUTATIONAL THINKING CONCEPTS

The following are the Computational Thinking Concepts learned in Part 3.

Find The Gold
1. Conditionals: 
2. Operators: