Turtle Art User Guide

OLPC Pakistan Documentation Project

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Abstract
Welcome to Turtle Art Users Guide, a comprehensive guide to using Turtle Art Activity in XO.

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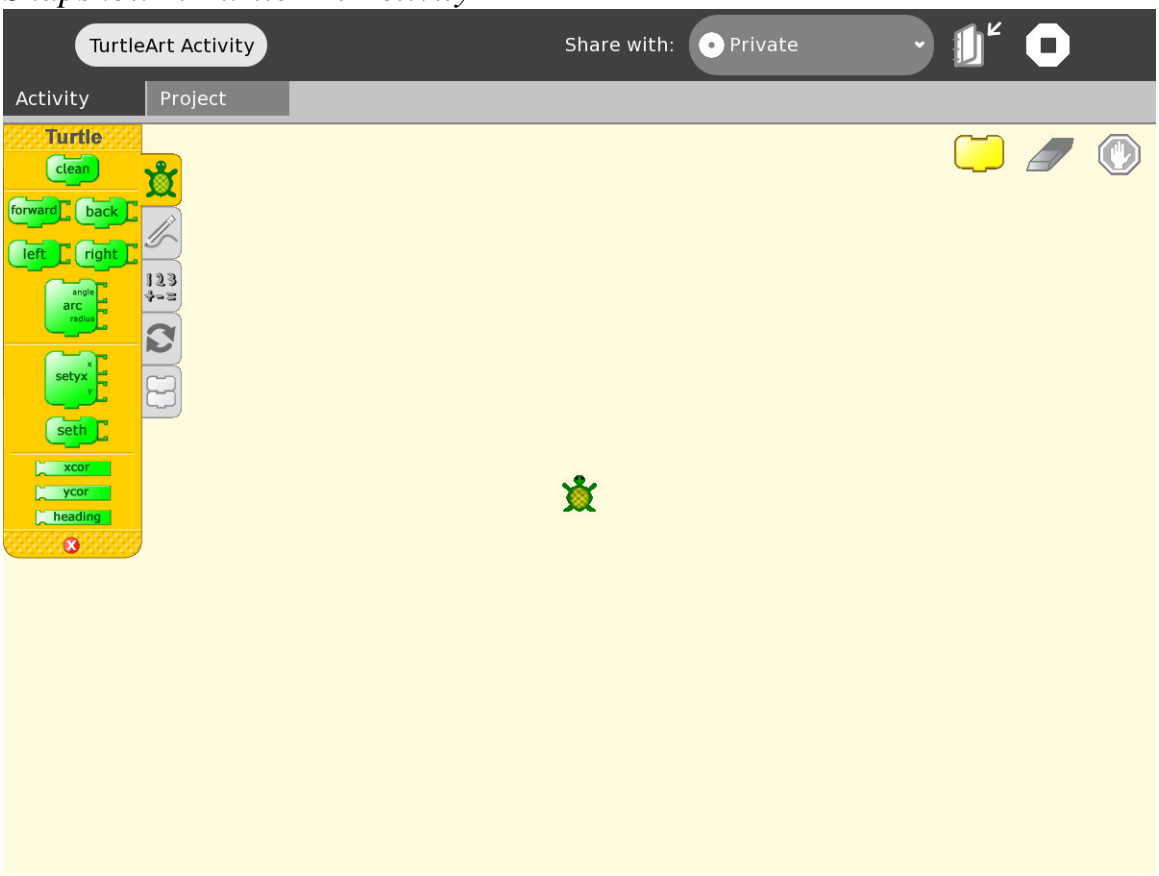
Open the Turtle Art Activity from the Menu. After that the Turtle Art Activity is open, you will see a turtle in the middle of window and a dialogue box with 5 tabs and few shapes in LEFT. You can see three icons in top-RIGHT corner of the window as well. The first LEFT is to show/hide the strings; second one is to clean all the turtle drawings and the last one is to stop the turtle doing its activity.

Click on any of them to make it do its assigned activity.

Snapshot. 1: Turtle Art Activity



Now we are going to draw some basic Geometric shapes exercises with this turtle.

Start the Turtle.

- From the Right side of the screen drag the LEFT/RIGHT tab to the blank screen.
  Click on its green part, what you see?

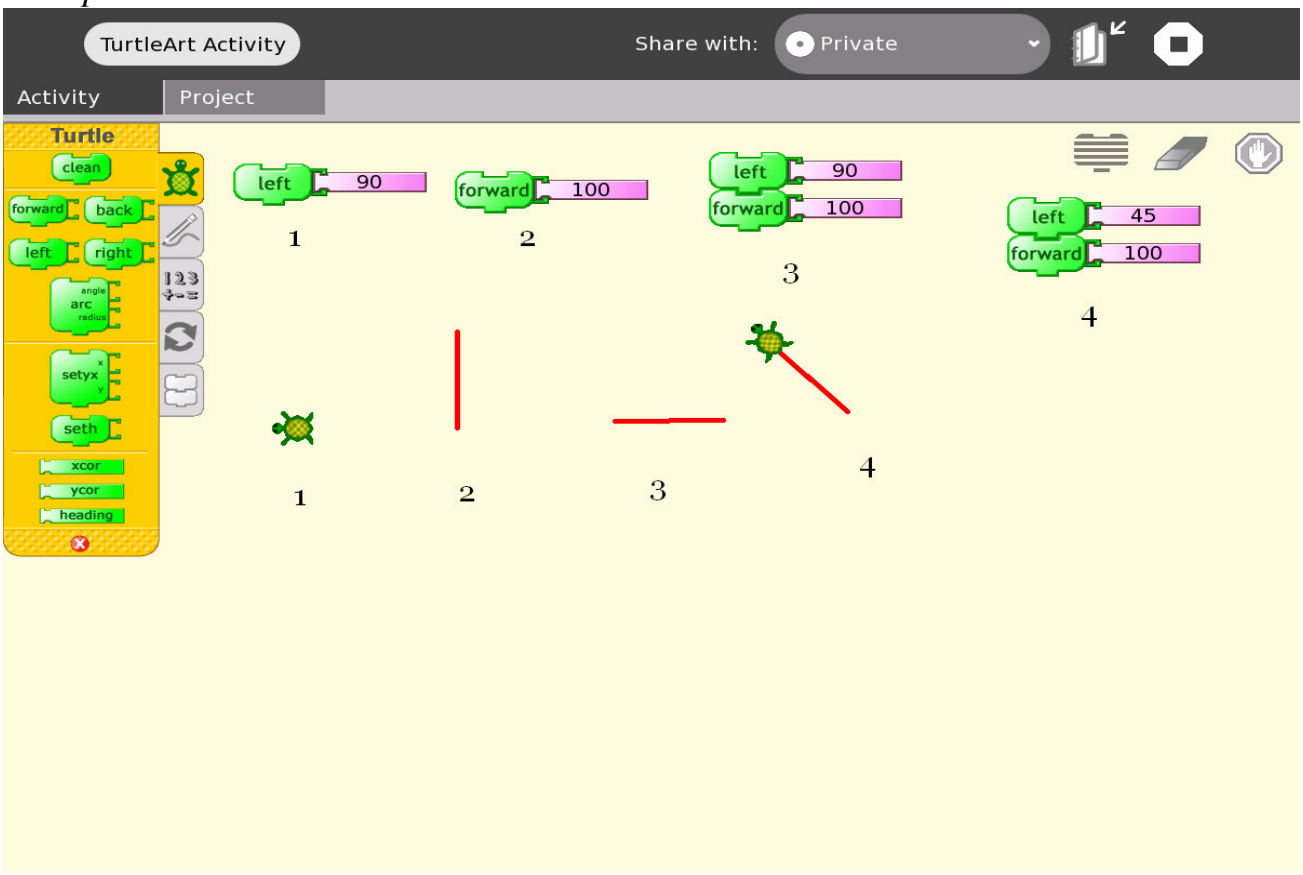
- Now drag the FORWARD tab to the blank screen.
  Do the same as did above.
  What do you see?

- Now join both these two tabs as;
  - First LEFT/RIGHT, beneath that FORWARD.
  - First FORWARD, beneath that LEFT/RIGHT.

  Click on a green part, what you see?

- Click on the purple part of RIGHT/LEFT tab and change the number to 45.
  Click on a green part, what does it do?

Snapshot. 2: Lines



- Now drag the BACK tab to the blank area.
  Click on its green part, what do you see?

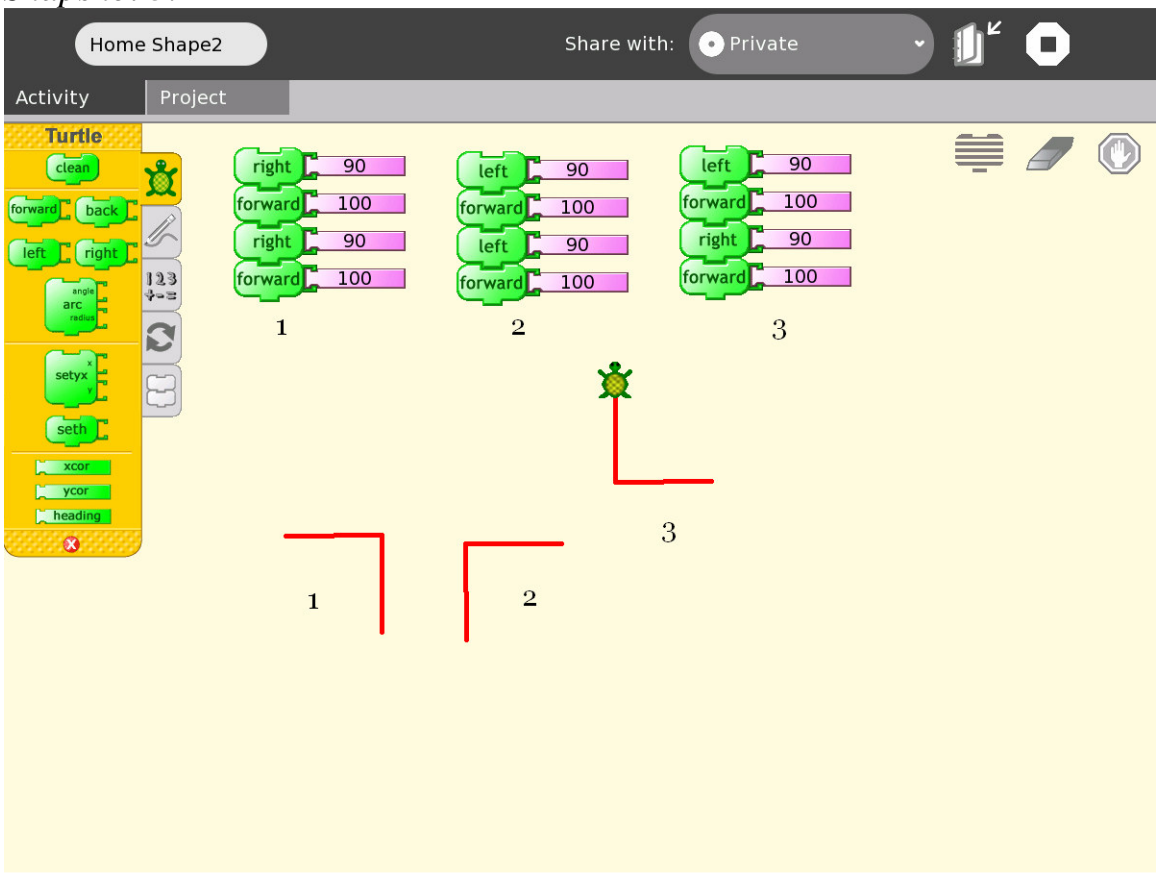
- Now try this:
  - Drag RIGHT tab to the blank screen.
  - Drag FORWARD tab to the blank screen.
  - Drag another RIGHT tab to the blank screen.
  - Drag another RIGHT tab to the blank screen.
  - Join them beneath each others.

- Click on any green block.
  - What is the shape drawn now?

- Now try LEFT instead of RIGHT.

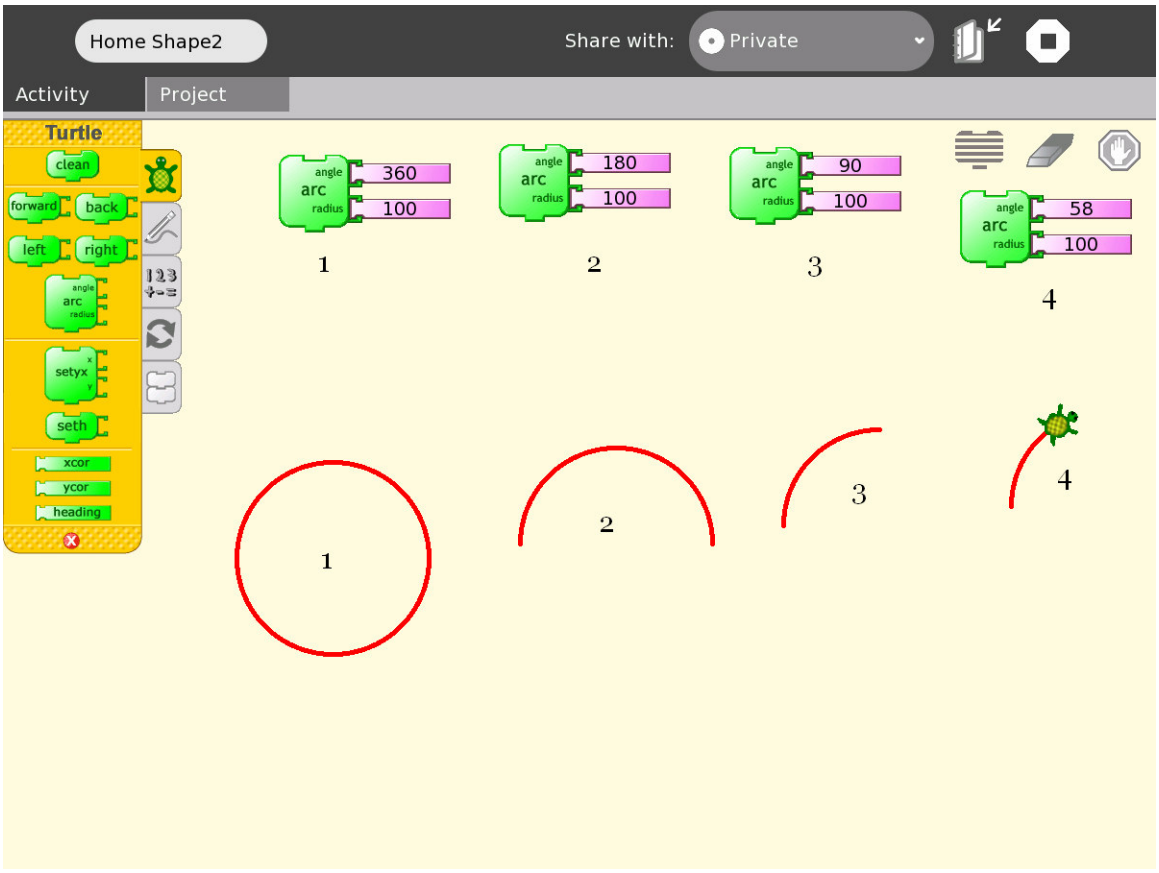
- Now change any LEFT to RIGHT.

Snapshot 3.



- Use ARC block inorder to drae a circle or curves.
  - Change the Angle of ARC to any digit to assign the angle of curve, to which extant the curve should be drawn.
    e.g.
    - 360, a full Circle
    - 180, a half Circle
    - 90 quarter of a Circle

Snapshot 4.



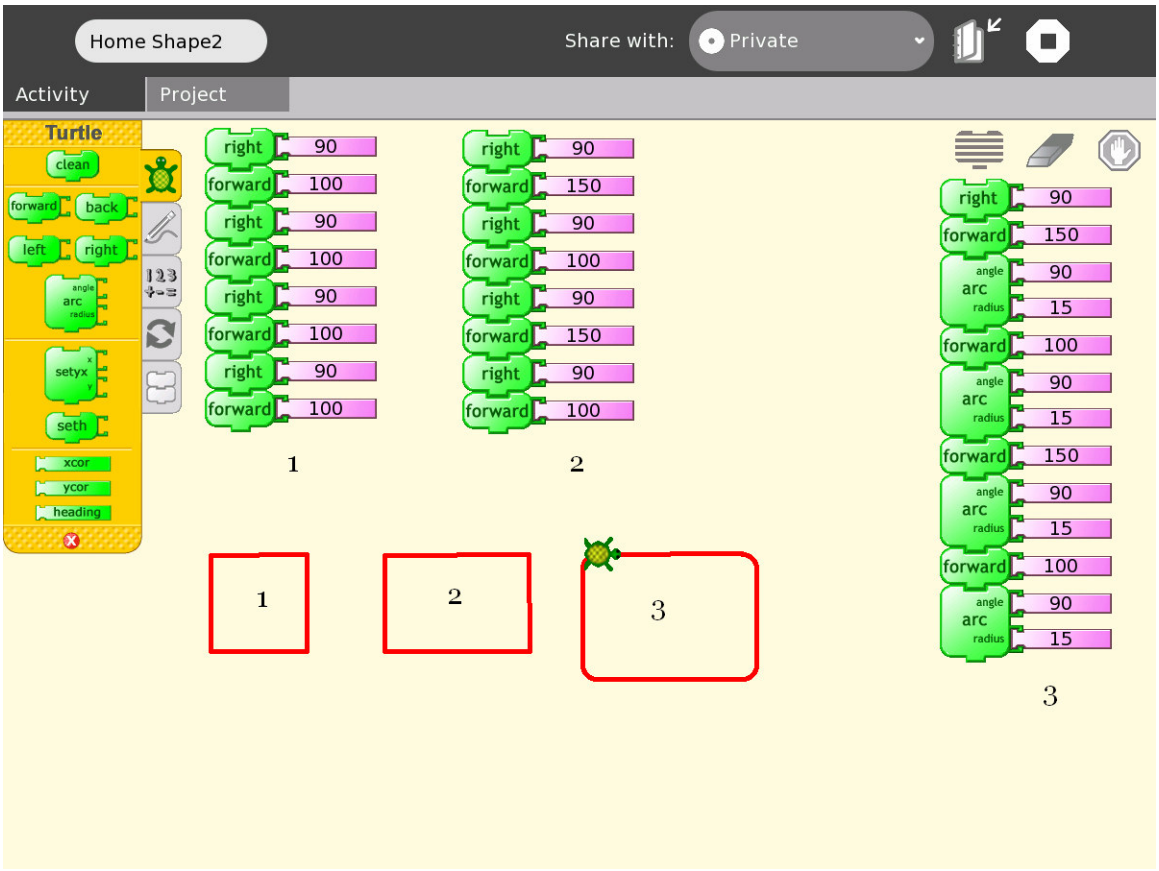
- Now try to draw a Square, using only RIGHT/LEFT & FORWARD/BACK.

- Try to draw a Rectangle too.

    - You only have to change the value of forward, remaining is the same as drawing a Square.

- Draw a Rectangle or Square with rounded corners.
    - You can use ARC block for the corners.
    - As in Snapshot 5.

Snapshot 5.

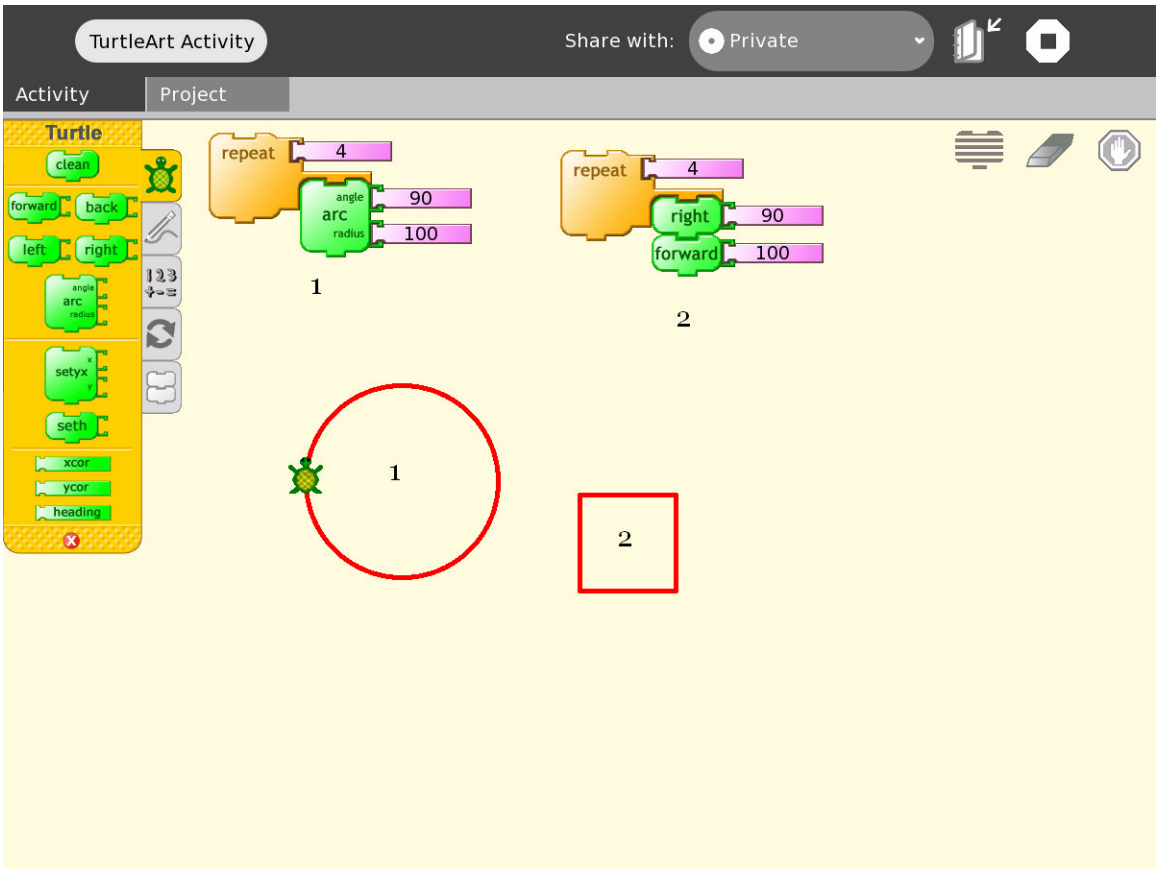


- Try to draw now some more shapes as Pentagone, Hexagone or other Polygon's.

- You can draw these simple shapes using another block, REPEAT from FLOW tab.
  - If you want to draw any shape, just drag the REPEAT tab.
  - Drag RIGHT/LEFT and then FORWARD.
  - Join both blocks in right of the REPEAT block.
  - Change the REPEAT to any number to draw the desired shape. e.g.
    - 1 → Straight Line
    - 2 → Straight Angle
    - 3 → Square

- Now try to draw Rectangle & Circle using REPEAT tab.

Snapshot 6.



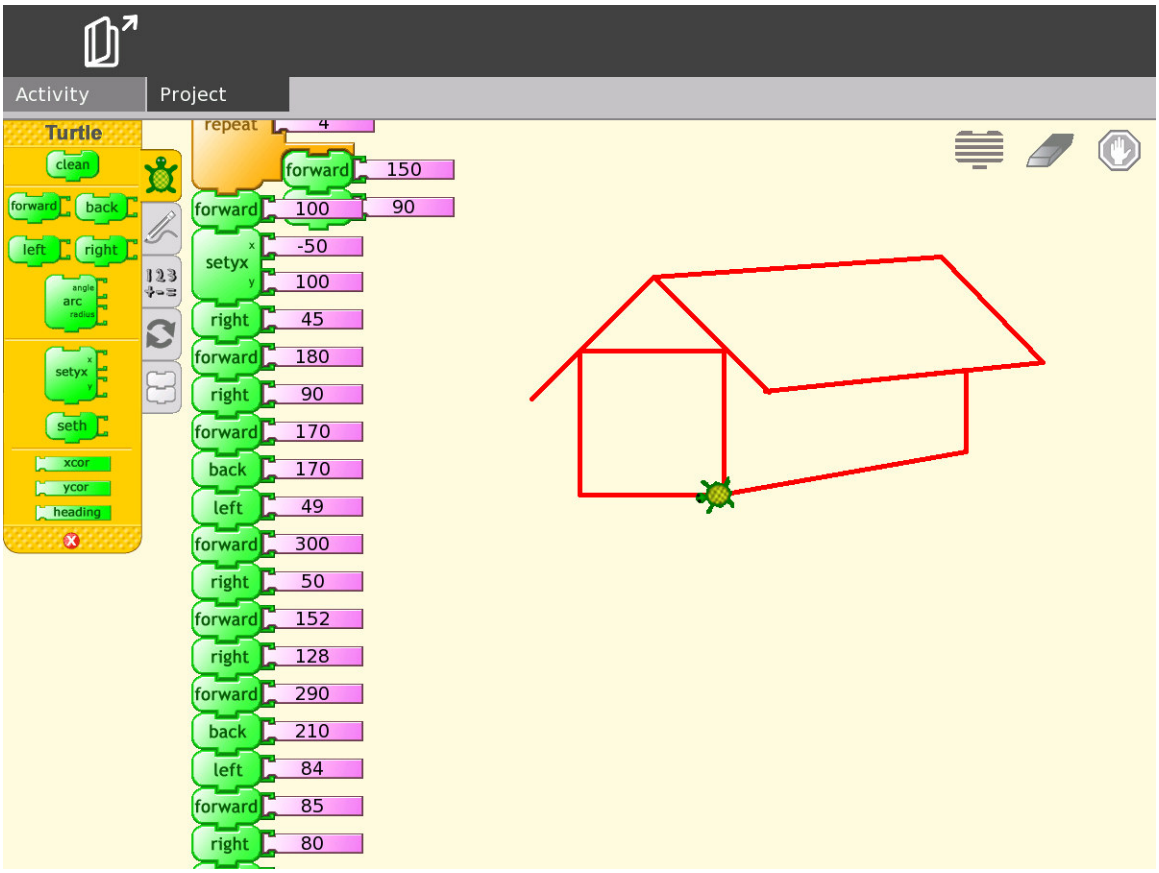
- How can you draw a Rectangle with Repeat?

- How can you draw a Triangle?

    - What does it occur, if you change the first LEFT block to RIGHT.
    - Try to draw some other shapes of Triangle.
      e.g.
      Wide Angle Triangle
      Short Angle Triangle
      Undetermined Angle Triangle

- Now try to draw a more complex shape.
  e.g.
  A Small Cottage House

Snapshot 7.


Activity
Project
Turtle
clean
forward
back
left
right
arc
angle
radius
setyx
x
y
seth
xcor
ycor
heading
repeat
4
forward
150
forward
100
90
setyx
x
-50
y
100
right
45
forward
180
right
90
forward
170
back
170
left
49
forward
300
right
50
forward
152
right
128
forward
290
back
210
left
84
forward
85
right
80