Ball-Paddle Collision

So you can move around your paddle, and the computer moves it’s own paddle, but every time the ball hits either one of the paddles it just goes right through it. We need to make the ball change directions when it comes into contact with a paddle.

* To do this, make a statement that says, when the Y coordinate of the ball = the Y coordinate of the paddle, change the ball direction.
  + So if the ball was heading in the direction of 1, and it encountered a paddle, the ball direction would be reversed to -1, that way the ball will be drawn the opposite direction.
* However, just doing this alone will only enable the ball to bounce back in a straight line from the direction that it came. The ball needs to be able to bounce back in different directions, otherwise the game will get pretty boring just having the ball go back and forth on the same track.
  + You should segment up the paddle into different regions. Say, when the ball contacts the middle region, it bounces off straight, if the ball contacts and upper region, it bounces off in an upward angled direction, and when the ball contacts a lower region, it bounces off in a lower angled direction.