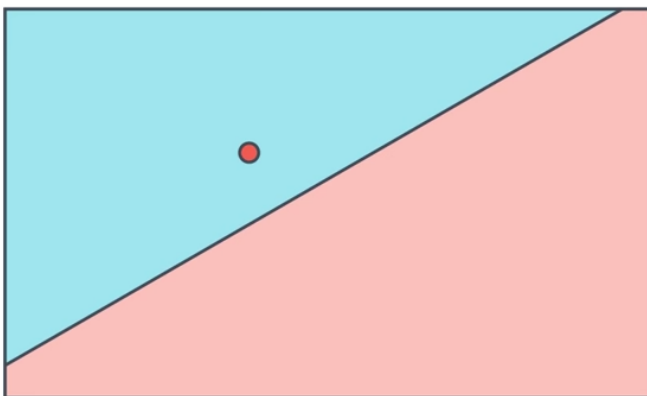




Perceptron Trick

In the last section you used your logic and your mathematical knowledge to create perceptrons for some of the most common logical operators. In real life, though, we can't be building these perceptrons ourselves. The idea is that we give them the result, and they build themselves. For this, here's a pretty neat trick that will help us.



QUIZ

Does the misclassified point want the line to be closer or farther?

- ☐ Closer
- ☐ Farther



Perceptron Trick

Does the misclassified point want the line to be closer or farther?

☒ Closer

☐ Farther

SUBMIT



Time for some math!

Now that we've learned that the points that are misclassified, want the line to move closer to them, let's do some math. The following video shows a mathematical trick that modifies the equation of the line, so that it comes closer to a particular point.



Perceptron Trick



For the second example, where the line is described by $3x_1 + 4x_2 - 10 = 0$, if the learning rate was set to 0.1, how many times would you have to apply the perceptron trick to move the line to a position where the blue point, at (1, 1), is correctly classified?

100

RESET

NEXT