1. The decision rule will be observations x\_1 > = 7.5 will fall under B, else they are A. Therefore $x\_1 = 6 and $x\_2 = 10 will fall under A.
2. The margin is equal to 2.
3. Support vectors are 10, 9, 8, 7 and 6. Support vectors receive penalty.
4. 5.75
5. We need to do the calculation
6. Data is separable. The line should go between support vectors 4, 8 and 9.