## 1 Linear Classifiers and Boolean Functions

1. Yes it is Linearly Separable. W = [1 1 1], b = -1
2. Yes it is Linearly Separable. W = [1 2 1] (x1 = 1, x2 = 2, x3 = 1), b = -2
3. Yes it is Linearly Separable. W = [1 -1 2] (x1 = 1, x2 = -1, x3 = 2), b = -1
4. Not Linearly Separable.
5. Yes it is Linearly Separable. W = [-1 1 -1] (x1 = -1, x2 = 1, x3 = -1), b = -1

## 2 Mistake Bound Model of Learning

* 1. The concept class is from 1 to 80, so the size is **80.**
  2. sdfg