

HW6b

MACHINE LEARNING, SUMMER 2019

Q 1(2 point). Show that $k(x, y) = \tanh(x^T y)$ is not a mercer kernel. Hint: Can you figure out the value of x and y to show that it is not a mercer kernel.

Q 2(2= 1+1 point) Solve 5.2 from the book.

Q 3. (2= 1.5+.5) Solve 5.3 from the book

(hint 5.3(b) if $\frac{r}{s} > 0$ then there is no cost of rejecting. so what should be done? For other part analyze the inequality (it becomes trivial even for most probable class). What should we do then?)