Question 1

a)

C

b)

Y = {A, B, C, D, E, F}

c)

X = { x ∈ R | x >= 0}

d)

X = {(x1, x2)| x1 ∈ R and x1 >=0 and x2 ∈{0, 1}}

e)

f(x) = { if scored perfect on HW 1 AND
if x >= 6.5, A
if 3.5 > x >= 4.5, B
if 4.5 > x >= 2.5, C
if 1.5 > x >= 0, D

if scored imperfectly on HW1 AND
if x >=10, A
if 10 > x >= 8, B
if 8 > x >= 6, C
if 6 > x >= 4, D
if 4 > x >= 0, D

Question 2

a)

Y = [a+b, a-b]

b)

a will be the mean f(x)
b should be range of temp in a year divided by 2
theta offsets the peak of the sin wave by (hottest day/ (2*pi))
T = number of days between 2 hottest days

c)

2

d)

365

e)

model 1 require less data points but may not generalize well to all locations
model 2 require more data points but genralizes well

In [ ]: