1.

35% use postal 55%blue 45% red

65% use in-person 48%blue 52% red

a)

A

0.35\*0.45+0.65\*0.52 = 0.4955

b)

C

P(post|Red Tomato) = P(Red Tomato|post)P(post)/P(Red Tomato)

1-P

c) D

P(Red) = 0.35\*0.45+0.65\*0.52 = 0.4955

0.35\*0.45/0.4955 = 0.318

d) B and A

e) C and D

0.5045^3

2.

i) C

1/2\*1/2 = 1/4

ii) D

0.05\*0.5+0.01\*0.5

iii) D

2.7

(2.7-2)^2\*0.8+(2.7-4)^2\*0.1+(2.7-6)^2\*0.05+(2.7-8)^2\*0.05

= 0.392+0.169+0.5445+1.4045 = 2.51

iv) A

v) B

3.

I)D and C

ii) A

iii)A

iv) B

linear

4.

a) D

b) C

sensitivity = recall = TP/ total positive cases

c) A

specificity = specificity = TN/(FP+TN)

d) D and B

precision = TP/(TP+FP)

e) A

5.

a) B, D

b) BCD

c) BD

d) A

e) BD

6.

a) A

b) A

c) D

d) C

e) D

7.

a) D

b) B

c) B

d) C

e) C

8.

a) C

b) D

c) C ?

d) C

e) B

f) B