Parker Skinner 1001541467
CSE 4309-001
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1.
    a. 0.2963
    b. 0.3074
    c. 0.3152
2. Yes, because our probabilities do not add up to 1, so C and D are capable of filling up the rest of the space to form a valid probability function
3. No, because the integration of this function P is <1 from 0 to 10
4. The probability the classifier will give the correct output for x is always .75. Since both boxes have a probability of .75 for containing either an Orange for the red box or apple for the blue box, if we give the classifier and apple or orange, it will pick the box that has a .75 probability of containing that fruit every time, resulting in the classifier having a probability of being correct .75.