Feedback — Week 2 Quiz

Help Center

You submitted this quiz on **Thu 31 Dec 2015 11:57 PM PST**. You got a score of **10.00** out of **10.00**.

Question 1

Say that a coin is weighted so that it produces a single heads with probability θ = 0.7. Compute Pr(HTHHT|θ). Give your answer to three decimal places.

You entered:

0.031

Your Answer		Score	Explanation
0.031	✔	2.00	
Total		2.00 / 2.00	

Question 2

Given the following *Data* and *Centers*, compute $HiddenMatrix_{1,2}$ (i.e., the responsibility of the first center for the second datapoint) using the partition function with stiffness parameter equal to 1. Give your answer to three decimal places.

Data: (2,8), (2,5), (6,9), (7,5), (5,2)

Centers: (3,5), (5,4)

You entered:

0. 897

Your Answer		Score	Explanation
0. 897	✔	2.00	
Total		2.00 / 2.00	

Question 3

Say we have the following *Data* and *HiddenMatrix*:

Data: (2,8), (2,5), (6,9), (7,5), (5,2)

HiddenMatrix:
0.5 0.3 0.8 0.4 0.9
0.5 0.7 0.2 0.6 0.1

Compute the weighted center of gravity corresponding to the first row of *HiddenMatrix*. Enter the coordinates of the weighted center of gravity as a pair space-separated numbers rounded to three decimal places.

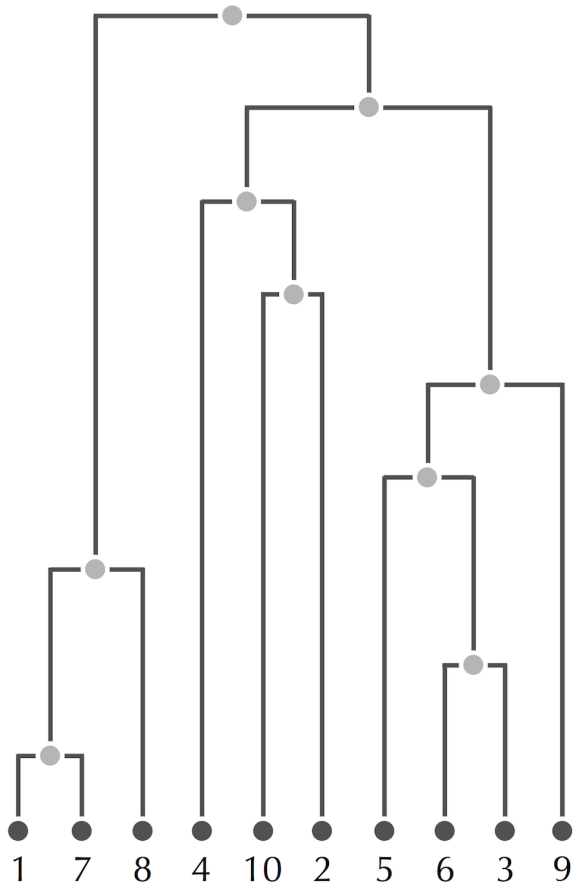
You entered:

4.724 5.690

Your Answer		Score	Explanation
4.724	✔	1.00	
5.690	✔	1.00	
Total		2.00 / 2.00	

Question 4

Below is a tree used by **HierarchicalClustering**. Which of the following clusters can be inferred from this tree? (Select all that apply.)



Your Answer		Score	Explanation
☐ {1, 7, 8}, {2}, {3}, {4}, {5}, {6}, {9}, {10}	✔	0.25	
☐ {1, 7, 8, 4, 10, 2}, {5, 6, 3, 9}	✔	0.25	
☑ {1, 7, 8}, {2}, {3, 6}, {4}, {5}, {9}, {10}	✔	0.25	
☑ {1, 7, 8}, {2, 3, 4, 5, 6, 9, 10}	✔	0.25	
☑ {1, 7, 8}, {2}, {3, 5, 6}, {4}, {9}, {10}	✔	0.25	
☑ {1, 7, 8}, {2, 4, 10}, {3, 5, 6, 9}	✔	0.25	
☐ {1, 7}, {2, 4, 10}, {3, 6}, {5}, {8}, {9}	✔	0.25	
☐ {1, 7}, {2, 10}, {3, 6}, {4}, {5}, {8}, {9}	✔	0.25	
Total		2.00 / 2.00	

Question 5

Below is a distance matrix D. If $C_1 = \{i, l\}$ and $C_2 = \{j, k\}$, compute $D_{\min}(C_1, C_2)$.

```
   i  j  k  l
i  0 20  9 11
j 20  0 17 11
k  9 17  0  8
l 11 11  8  0
```

You entered:

8

Your Answer		Score	Explanation
8	✔	2.00	
Total		2.00 / 2.00	