CSIE 5432/5433 HW6 PDF

YiWenLai

TOTAL POINTS

10 / 0

QUESTION 1

1 Problem 10 -10 / 0

+ **20 pts** correct

+ **20 pts** Your answer is correct but your don't choose [e].

+ **10 pts** Almost correct.

+ **0 pts** You don't choose any answer.

✓ **- 10 pts incorrect**

- **10 pts** Almost without any description.

- **10 pts** Your explanation doesn't make sense to me.

Your answer is incorrect.

1 Here shoud be "-2 || x' - x|| "

QUESTION 2

2 Problem 12 20 / 0

✓ **+ 20 pts correct**

+ **15 pts** one mistake

+ **10 pts** two mistakes

+ **5 pts** three mistakes

+ **0 pts** Your explanation doesn't make sense to me

+ **0 pts** I have no idea

- **10 pts** Wrong answer

- **10 pts** Little to no explanation

QUESTION 3

3 Problem 14 0 / 0

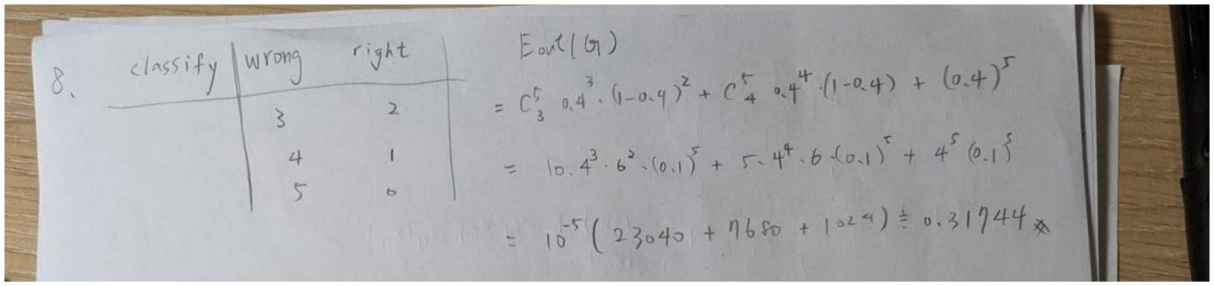
✓ **+ 0 pts Correct**

- **10 pts** wrong page

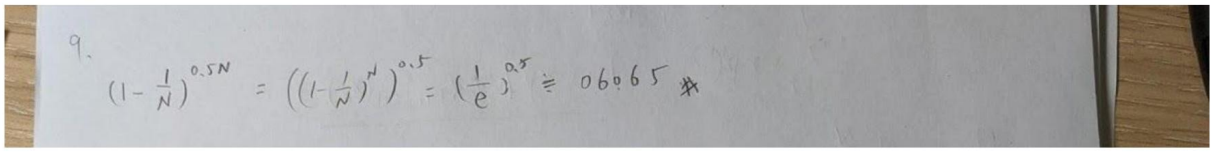
- **20 pts** no submission

- **20 pts** Use ineligible package

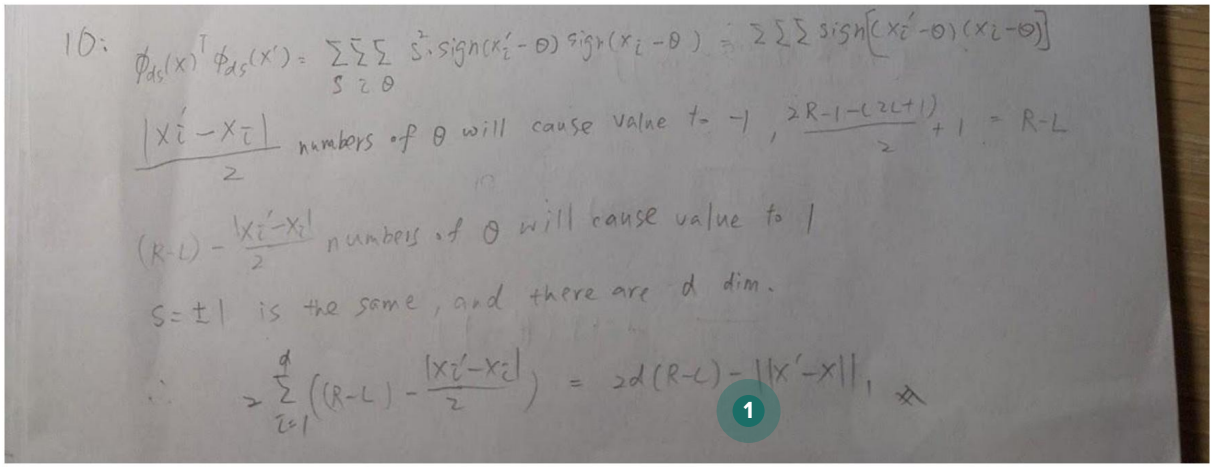
8. c



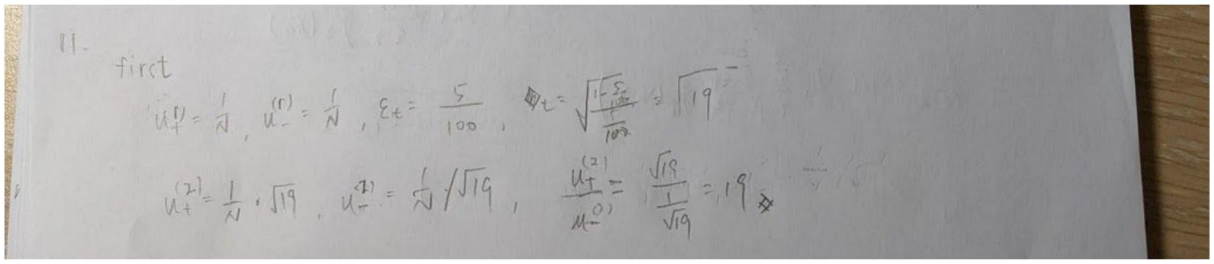
9. b



10. e, because there is no the same answer as what I derived.
The |xi' - xi| / 2 in the last row should be |xi' - xi|, since I forgot to add two cases together, so there will be no answer according to all answers except (e).



11. a



12. d

1 Problem 10 **-10 / 0**

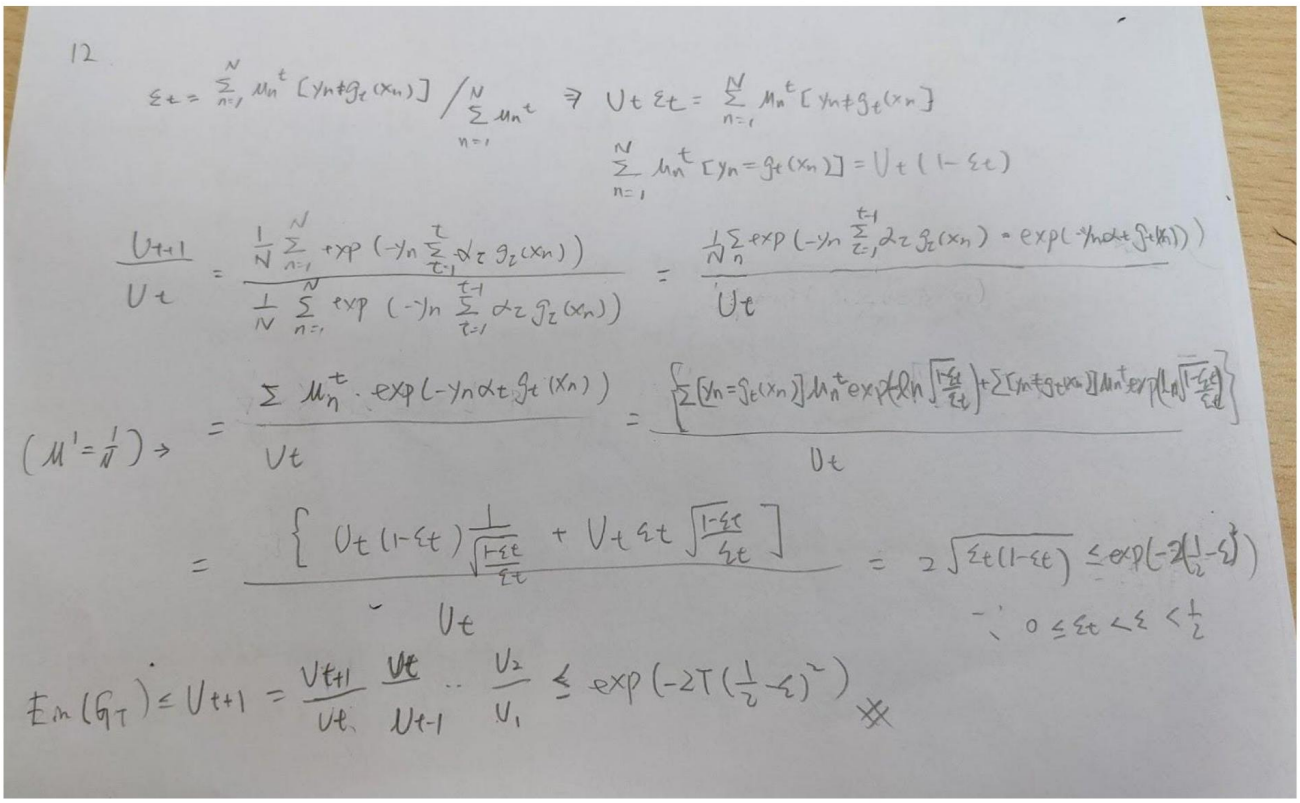
+ **20 pts** correct
+ **20 pts** Your answer is correct but your don't choose [e].
+ **10 pts** Almost correct.
+ **0 pts** You don’t choose any answer.

✓ **- 10 pts incorrect**

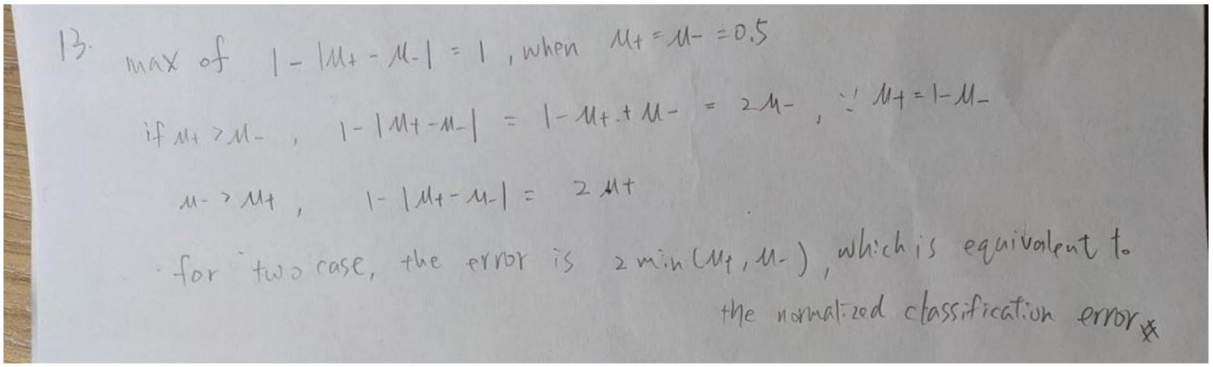
- 10 pts Almost without any description.
- 10 pts Your explanation doesn’t make sense to me.

Your answer is incorrect.

1 Here shoud be "-2 || x' - x|| "



13. d

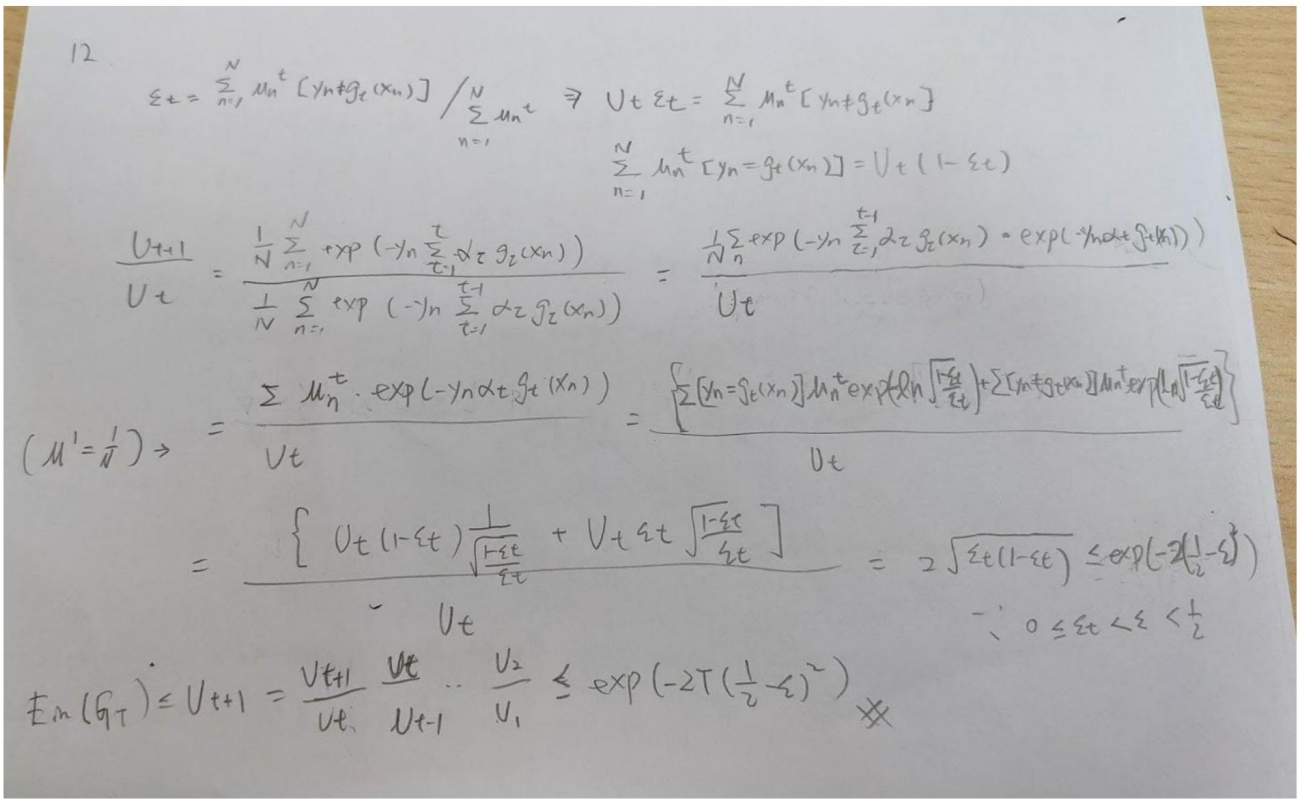


14. c

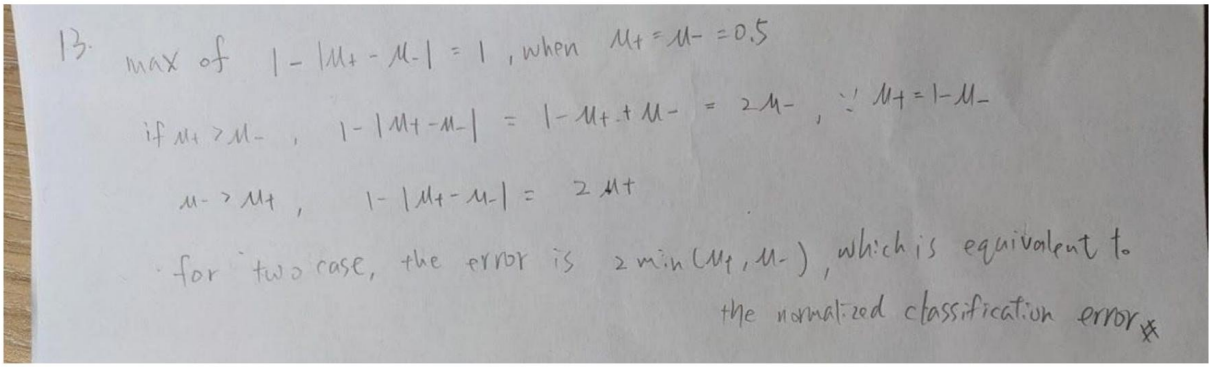
```
yiwenlai@YiWens-MacBook-Pro ~/Desktop/hw6 INSERT
14: 0.166
15: 0.229115
16: 0.014
17: 0.155
18: 0.072
```

2 Problem 12 20 / 0

- ✓ **+ 20 pts correct**
- **+ 15 pts** one mistake
- **+ 10 pts** two mistakes
- **+ 5 pts** three mistakes
- **+ 0 pts** Your explanation doesn't make sense to me
- **+ 0 pts** I have no idea
- **- 10 pts** Wrong answer
- **- 10 pts** Little to no explanation



13. d



14. c

```
yiwenlai@YiWens-MacBook-Pro ~/Desktop/hw6 INSERT
14: 0.166
15: 0.229115
16: 0.014
17: 0.155
18: 0.072
```

```python
train_x, train_y, test_x, test_y = dataloader()
root = DecisionTree(train_x,train_y,'','root')
err_count = 0
for i in range(test_x.shape[0]):
    node = root
    result = 0
    while(True):
        i_feature, s, theta = node.data
        result = np.sign(test_x[i][i_feature] - theta) * s
        if result > 0:
            if node.right == None:
                # print('here')
                break
            node = node.right
        else:
            if node.left == None:
                # print('here')
                break
            node = node.left
    # print(i, result)
    if result != test_y[i]:
        err_count += 1
print('Q14: ', err_count/1000)
```

15. d

3 Problem 14 0 / 0

✓ **+ 0 pts** **Correct**

- **10 pts** wrong page
- **20 pts** no submission
- **20 pts** Use ineligible package