```python
import sys
import io
import itertools

#Problem 4

txt = """3
2 2
TC
3 1
AAA
4 1
CGGT"""

stdin = io.StringIO(txt)

#Actual use (Comment the below line for testing)
stdin = sys.stdin

def P4():
    t = int(stdin.readline().strip())
    elements = "AGCT"
    for _ in range(t):
        n, k = map(int, stdin.readline().split())
        dna = stdin.readline().split()[0]
        dna_elements = [element for element in dna]
        comb = []
        for item in itertools.product(elements, repeat=n):
            count = 0
            for i, x in enumerate(item):
                for j, y in enumerate(dna_elements):
                    if x == y and i == j:

                        count += 1

            if count >= n - k:
                comb.append(item)

        output = [dna]
        for c in comb:
            tmp = ''
            for element in c:
                tmp += element
            output.append(tmp)

        output = sorted(output)
        output = set(output)
        print(len(output))
        for DNA in output:
            print(DNA)

P4()
```