

```

def obtain_lexicographically_smallest_string(N, P, S):
    points_left = P
    S = list(S)

    for i in range(N):
        if S[i] == 'a':
            continue
        elif S[i] == 'b':
            if points_left >= 11:
                j = i
                while j > 0 and S[j - 1] == 'a':
                    S[j], S[j - 1] = S[j - 1], S[j]
                    j -= 1
                points_left -= 11
            else:
                S[i] = 'a'
                points_left -= 2

    return ''.join(S)

T = int(input())

for _ in range(T):
    N, P = map(int, input().split())
    S = input()
    result = obtain_lexicographically_smallest_string(N, P, S)
    print(result)

```