1. (4 points) Show the renamed versions of the following code. Assume you have 4 rename registers, `T1-T4`.

```
1   ADD   R1, R2, R3
2   ADD   R3, R4, R5
3   BEQZ  R1, 1000
4   ADD   R1, R1, R3
5   ADD   R1, R1, R3
6   ADD   R3, R1, R3
```

```
1   ADD   T1, R2, R3
2   ADD   T2, R4, R5
3   BEQZ  T1, 1000
4   ADD   T3, T1, T2
5   ADD   T4, T3, T2
6   ADD   T1, T4, T2
```

2. (4 points) Show the renamed versions of the following code. Assume you have 36 physical registers and 32 architected registers.

```
1   ADD   R1, R2, R3
2   ADD   R3, R4, R5
3   BEQZ  R1, 1000
4   ADD   R1, R1, R3
5   ADD   R1, R1, R3
6   ADD   R3, R1, R3
7   ADD   R4, R3, R1
```

```
1   ADD   P33, P2, P3
2   ADD   P34, P4, P5
3   BEQZ  P33, 1000
4   ADD   P35, P33, P34
5   ADD   P36, P35, P34
6   ADD   P1, P36, P34
7   ADD   P3, P1, P36
```