

8 Norvell's Last Drive

It's fourth quarter, FSU is down by 6, and Coach Mike Norvell has lost his mind. The field is broken into positions, connected by two types of plays:

- **Set Plays:** Can only be run in one direction. Norvell drew an arrow and he *means* it.
- **Audibles:** The quarterback can run this play going either direction.

Each play has an effort cost. Find the minimum total effort to move the ball from position 1 (the line of scrimmage) to position N (the end zone). If it's impossible to score, print **Punt**.

8.1 Input

The first line contains a single integer T , the number of test cases. For each test case:

- The first line contains three integers N , M_s , and M_a , the number of positions, the number of set plays, and the number of audibles.
- The next M_s lines each contain three integers u , v , w , a set play from position u to position v with effort cost w .
- The next M_a lines each contain three integers u , v , w , an audible between position u and position v with effort cost w .

8.2 Output

For each test case, print a single integer, the minimum effort to reach position N from position 1. If unreachable, print **Punt**.

8.3 Constraints

$$\begin{aligned}1 &\leq T \leq 20 \\2 &\leq N \leq 10^3 \\0 &\leq M_d, M_a \leq 5 \times 10^3 \\1 &\leq u, v \leq N, \quad u \neq v \\1 &\leq w \leq 10^4\end{aligned}$$

8.4 Sample Input/Output

Sample Input	Sample Output
2	11
5 3 2	Punt
1 2 10	
2 4 3	
4 5 5	
1 3 4	
3 4 2	
4 2 0	
1 2 100	
2 3 1	
1 3 50	