

### **Exercise 11-1:**

Create an example for which **the best solution is always obtained from the greedy set cover algorithm** among the three methods (the greedy set cover algorithm, the pricing method, and the LP-based method) where “always” means “independent of the choice of a tie-breaking mechanism in the greedy set cover algorithm, the order of edges in the pricing method, and the choice of a single solution from multiple optimal solutions in the LP-based method”.

### **Exercise 11-2:**

Create an example for which **the best solution is always obtained from the pricing method** among the three method.

### **Exercise 11-3:**

Create an example for which **the best solution is always obtained from the LP-based method** among the three method.

**Important:** In the LP-based method, you need to examine **all optimal solutions** if the LP problem has multiple optimal solutions in order to handle “**always**” in these three exercises.

## Exercise 11-2:

Create an example for which **the best solution is always obtained from the pricing method** among the three method.

Please create a single connected graph instead of a combination of disconnected graphs

[Bad Example]

