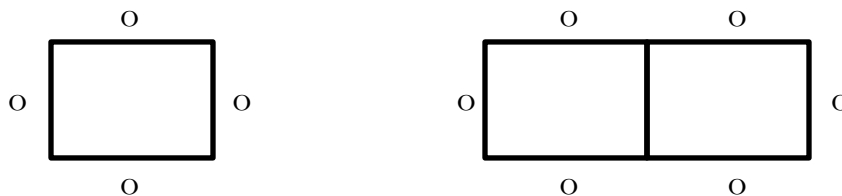# The Banquet Table Problem

In the school cafeteria, four people can sit together at one table. If two tables are placed together, then six people can sit together, as shown below.

```
        O                          O           O
   ┌──────────┐              ┌──────────┬──────────┐
 O │          │ O          O │          │          │ O
   └──────────┘              └──────────┴──────────┘
        O                          O           O
```

1. How many tables must be placed together to seat 10 people? 20 people?

2. If the tables are placed together in a row, how any people can be seated using 10 tables? 15 tables?