## The Class Party Problem

Ms. Simpson, the assistant principal, has appointed you chairperson of the committee whose responsibility is to plan the $7^{\text {th }}$ grade end-of-year class party. There are $1007^{\text {th }}$ graders at your school but it is unknown how many students will attend and it has not yet been decided whether each class member can invite a guest. Here is the information about party options:

- Water World offers swimming, and a snack (one hot dog, small bag of chips, and drink.) The cost is $\$ 100$ to reserve the pool and $\$ 5.00$ per person.
- Pizza Pi and Movie Plex offers a movie and a snack (pizza and drink.) The cost is $\$ 10.00$ per person, which includes the movie and snack.
- Skate 'Til Late offers skating and ice cream. The cost is $\$ 200$ to rent the skating rink and $\$ 2.00$ per person which includes the ice cream and skate rental.

Write a memo to Ms. Simpson explaining which party option is the best, for different numbers of students participating, if price is the main concern of the class.

