

A Skating Party

At the conclusion of a winning season, the coaches for the middle school girls and boys basketball teams have decided to sponsor a skating party for their players. Charges for the skating party at the Roller Lane Skating Rink include \$1.50 for each player's skates, \$4.50 for each players' snacks, and a \$250 flat fee for rental of the rink for four hours. There is no charge for the coaches.

1. Extend the table below to determine the cost of the party for up to 10 players.

Number of Players	Skate rental	Snack fee	Rink rental	Total Costs
1	\$1.50	\$4.50	\$250	
2	\$3.00	\$9.00	\$250	
3	\$4.50	\$13.50	\$250	

2. Represent your table by drawing a graph. Would it make sense to connect the points on your graph? Why or why not?
3. Use your table and your graph to help you write an equation that expresses the relationship between the cost of the skating party and the number of players attending. Explain the meaning of your expression using words.
4. Use your equation to figure the cost if no one shows up at the party. Explain what this means in terms of the situation. Plot this point on your graph. Describe what you see.
5. There are 23 players on the girls' basketball team and 21 players on the boys' team. How much will it cost if all of the players come to the party? Show how you know.
6. The booster club has given the coaches \$485 to spend on the party. If the party costs more than that amount, the coaches will need to pay the remaining amount out of their pockets. How many players can attend the party without the coaches having to share in the costs?