In recent years, Big Mountain Resort, situated in Montana, has become a sought-after ski destination. With a great view of a National Park and Forest, it gives access to 105 trails and 350,000 people annually. Recently, Big Mountain Resort installed an additional chair lift to improve visitor distribution across the mountain. However, a chair lift was recently installed to help increase distribution of visitors across the mountain, increasing operating costs by $1,540,000 this season. As a result of the additional operating costs of the chair lift, the business needed to decide whether it would increase ticket prices or decrease features to compensate.

The business proposed 4 scenarios that they feel would help support ticket cost. The scenarios involved closing up to 10 of the least used runs permanently while maintaining the existing price structure. Increasing the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage. Increasing the vertical drop by adding 2 acres of snow. Finally, extend the longest run by 0.2 miles to boast a run of 3.5 miles in length, which would require 4 acres of additional snowmaking coverage.

In the first model of closing up to 10 runs, ticket prices and revenue didn’t seem to differ and closing 3 to 5 runs showed no real difference in revenue compared to closing 1 or 2, which shows a steep drop in revenue. This is shown in the figure below.

A graph of a price

Description automatically generated with medium confidence

According to the models for increasing price and adding features, increasing the vertical drop by 150 feet would support an increase in price of $8.36 and revenue of $14.6 million. With the same model, but with the addition of snow making over 2 acres, the price per ticket would be raised to $9.23 and an additional $1.5 million in revenue would be generated, for a total of $16.1million in revenue. The final model of extending the longest run by 0.2 miles and ensuring snow coverage through an extra 4 acres of snowmaking didn't affect ticket pricing. Viewing these scenarios, if you close up to 5 of the least used runs, it seems like you will be able to generate less revenue since you will be charged less. However, unlike in the other scenarios you will not be incurring costs for installing new lifts, new snowmaking equipment, and grooming the new terrain, which would certainly increase operating costs and lower revenue.