**Problem**:

How can Big Mountain better value ticket prices and resort facilities to drive revenue?

**Analysis:**

Based on our analysis of ticket prices for ski resorts across the Unites States, we have identified what features of a ski resort help in determining a price point for a ticket. Below are images that show the positive relationships between our top features and ticket prices:

In spite of Big Mountain having some of the highest weekend pricing in the nation, and the highest in Montana, Big Mountain is also amongst the resorts with the largest vertical drop, the greatest number of runs, largest area of snow making coverage, and fast quads\*.

Based on the business’ provided courses of action, we created a [Random forest regression model](https://towardsdatascience.com/machine-learning-basics-random-forest-regression-be3e1e3bb91a) that helped to determine which of the provided options would yield the greatest return on investment by justifying a higher ticket price. We found that three distinct actions could justify a new ticket price of $90.88, **which could increase our annual revenue by $17,290,000**.

We recommend that Big Mountain take the following actions:

* Increase the vertical drop by adding a run to a point 150 feet lower down
* Install an additional chair lift for that new run
* Add 2 acres of snow making cover
* Close 1 of the resort’s lesser used runs

**Plan:**

While some of these recommendations may take time to implement, closing a single run immediately can quickly lower our operating expenses, while having no expected impact on revenue\*. Second, adding 2 additional acres of snow coverage would help to highlight our commitment to our customers in providing consistent access to part of our facilities. Lastly, increasing the vertical drop and adding an additional chair to bring customers directly to it will prove to be the single most effective way to drive our ticket’s value.

*References*

\* Jupyter Notebook “05\_Modeling”