INTEGER LINEAR PROGRAMMING

formulation

$$\text{minimize} \quad Z = Ax + By + Cz$$

24 resorts

x : Budget inconvenience ⎫
y : Travel inconvenience ⎬ compound variables
z : Snow inconvenience ⎭

MPG

$x \sim$ milage, people, distance

$y \sim$ distance, road risk (?), Snowfall rate, time, skill

$z \sim$ snowfall rate, avg. snow, talk!

Calculate cost of trip, reduce by factor of people ⟶ $

polyline

Calculate ... (icy road data from COtrip), accidents, road closures, driving skills evaluation.

Snow 1 hour.

#*%@!

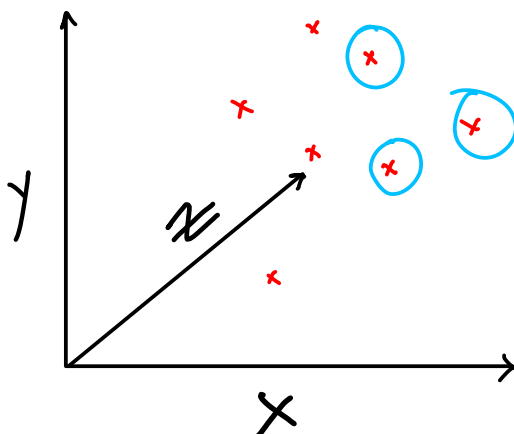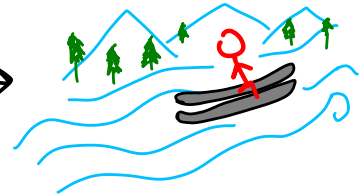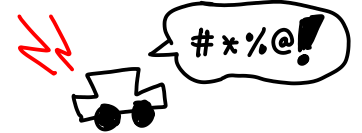what factors? (minimum Snowfall, inches)

average

6-24"

24 hours < 6" good

How much snow would you like?

minimize current to avg

Higher is better!

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x = cost of trip

$$\left\{ \frac{1}{\text{miles/gal}} \times \text{fuel cost} \times \text{total miles} \right\}$$

$\uparrow$
car

$\uparrow$
Colorado
avg

$$\underline{\hspace{10cm}}$$
People

y: snowfall last 1hr (start and end) $\longrightarrow$

traffic flow (normal - current) $\longrightarrow$

total time (   )

temperature (if < 5°F)