



What does an actuary do?

Candy bar companies sell candy bars!

$$\text{PRICE} = \text{COSTS} + \text{PROFIT}$$

What are the costs to include when deciding on the price of a candy bar?

What do insurance companies sell?

A promise to indemnify the policyholder for future costs.

How do we price a product where all the costs are in the future?!?

$$\text{PRICE} = \text{COSTS} + \text{PROFIT}$$

$$\text{PREMIUM} = \text{EXPECTED FUTURE LOSSES} + \text{EXPECTED FUTURE EXPENSES} + \text{DESIRED FUTURE PROFIT}$$

What does an actuary do?

Your Premium
is...



Why are we learning all of this?!?

