

Five Estimation and Forecasting #Tips

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An Accidental Statistician



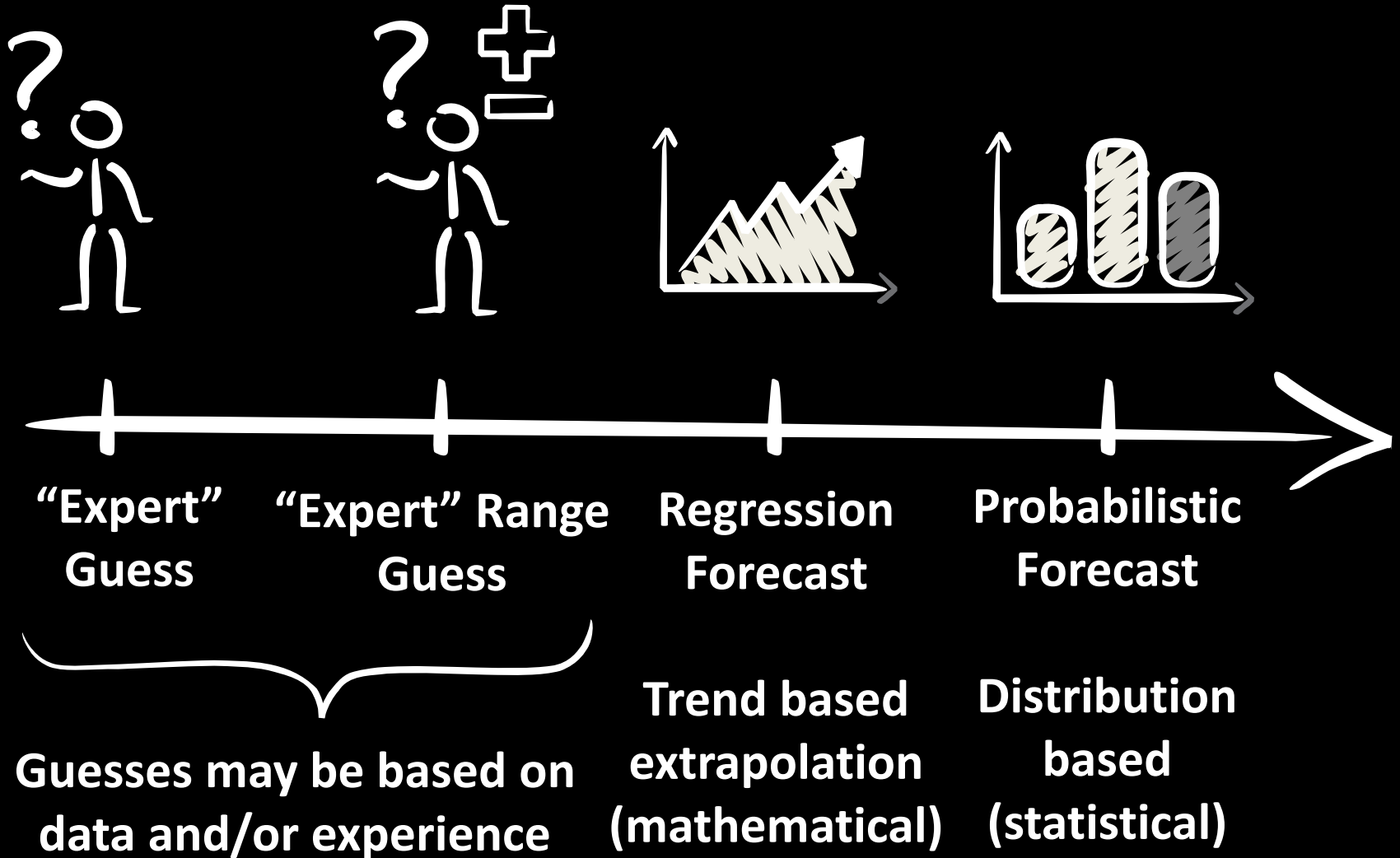
George E.P. Box

A handwritten signature of George E.P. Box, followed by the word "WILEY" in a serif font.

**“All models are wrong.
Some are useful.”**

**Just has to be better than
what is currently used
and intuition alone....**





**Not About
Use of
Data**



If there are no choices,
there is no need to
estimate or forecast

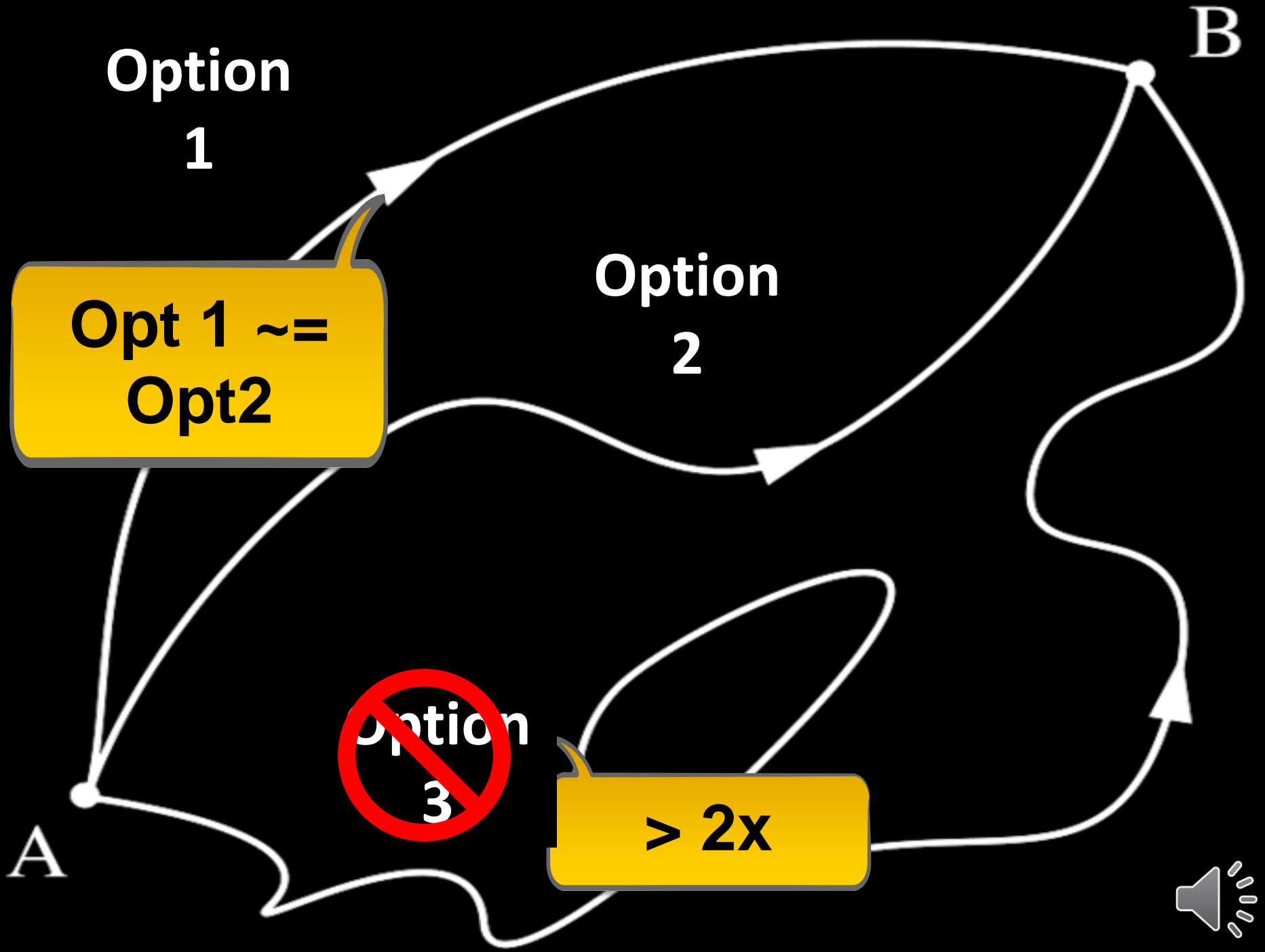
**Best
option**






Ruling Out
an option is a
**success to
celebrate**








Joshua Tree Natl Park	1
Cottonwood Springs	8
Twentynine Palms	47

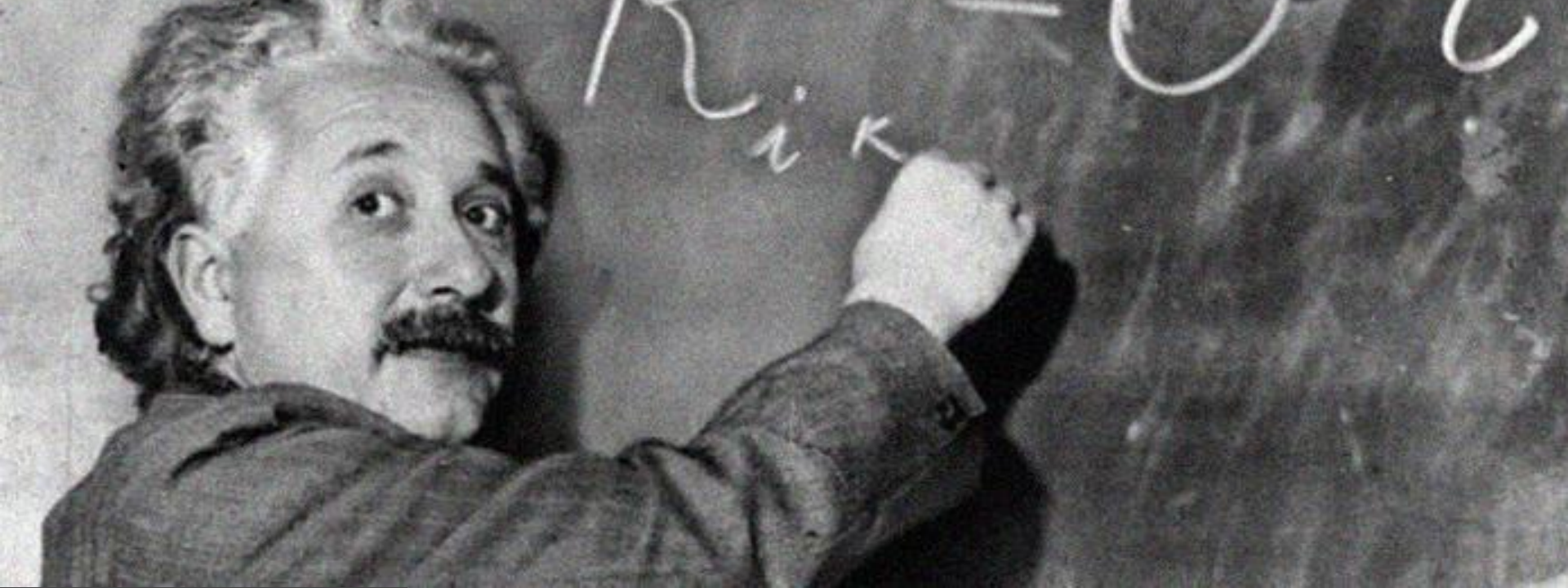
NEXT SERVICE 47 MILES



**“use the least
precision that
supports making
the decision”**

G. Dinwiddie via Twitter





“Expert”
Judgement
Requires Context
and Practice





versus

$$2 + 2 = 5$$



Set a goal.

Have an
achievable
plan

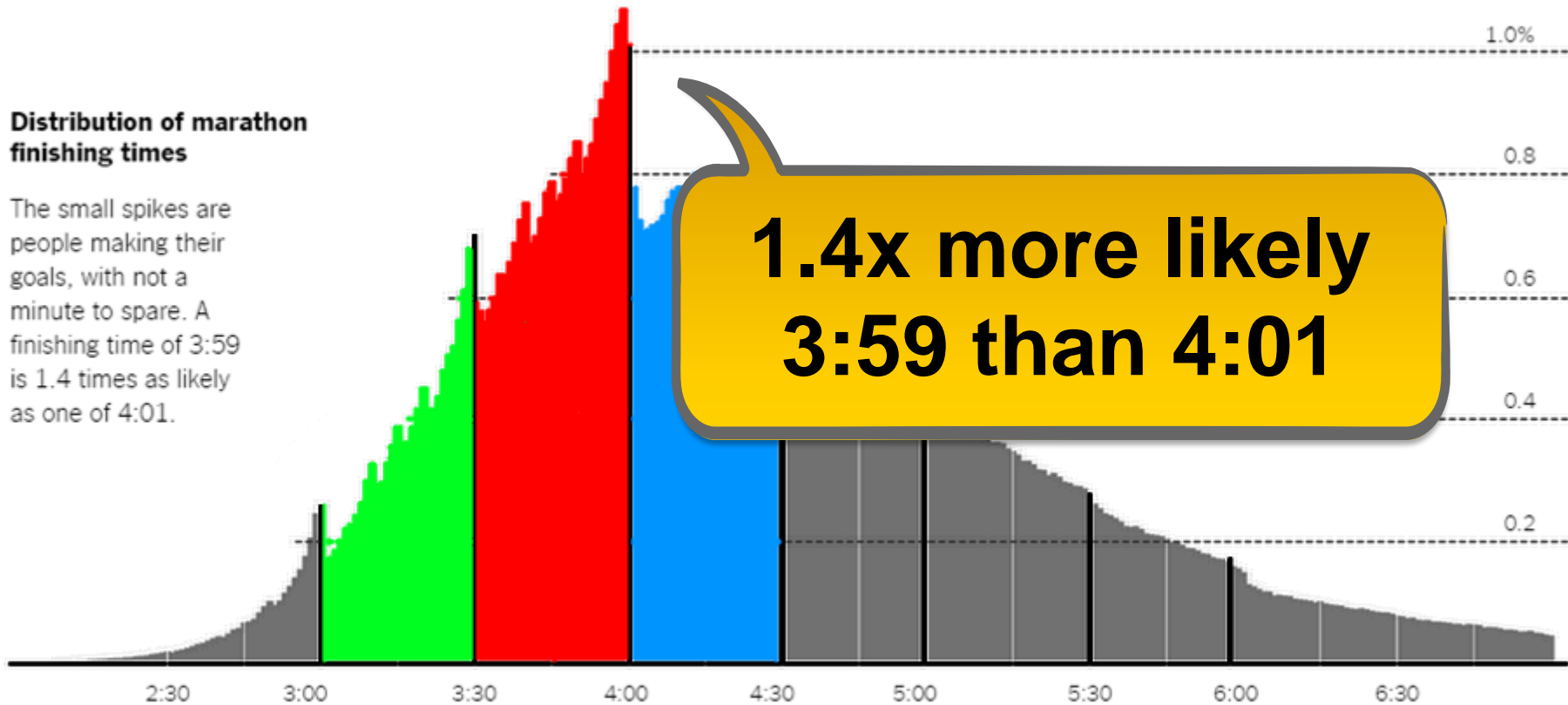


Arbitrary goals, like round numbers, can be motivating – just ask 9 million marathoners.

Distribution of marathon finishing times

The small spikes are people making their goals, with not a minute to spare. A finishing time of 3:59 is 1.4 times as likely as one of 4:01.

**1.4x more likely
3:59 than 4:01**



Based on data from Eric Allen, USC, Patricia Dechow, U.C. Berkeley, Devin Pope and George Wu, University of Chicago.

Source: NYT:

http://www.nytimes.com/interactive/2014/04/22/upshot/100000002835671.mobile.html?abt=0002&ab=1&_r=0



Don't estimate if you don't have to

Estimate in the largest units practical

Used data (only) when it exceeds judgement

Set achievable dates, backed by a plan

Track missed assumptions (not status)



A glowing lightbulb is centered on the left side of the image. The bulb is illuminated from within, casting a warm, yellowish glow. The background is dark and slightly textured, making the lightbulb stand out. The word "THEORY" is written in white, bold, sans-serif capital letters across the upper portion of the lightbulb.

THEORY

The right half of the image features a vibrant, high-contrast landscape. In the foreground, there are rolling green hills with a fine, grassy texture. The sky above is a deep, clear blue, filled with large, fluffy white cumulus clouds. The overall scene is bright and cheerful, representing the "PRACTICE" aspect of the image.

PRACTICE

nnis [Bit.ly/SimResources](https://bit.ly/SimResources) 