

11th October 2018

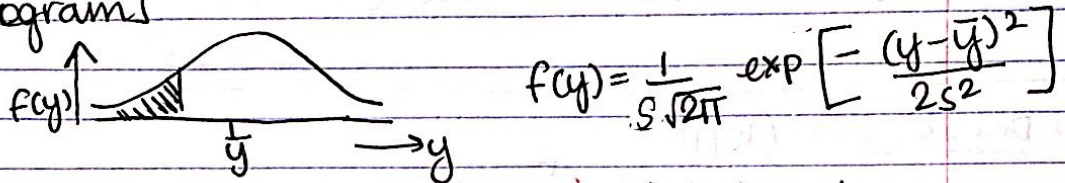
(HW 1 due next wed (Oct 17))

Q What % of Butterflies in data set have wing length ≥ 3.56 cm

A [From Raw (sorted) Data Set] EXACT
 $\frac{2}{24} \times 100 = \sim 8\%$

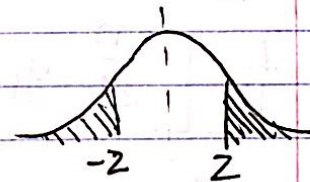
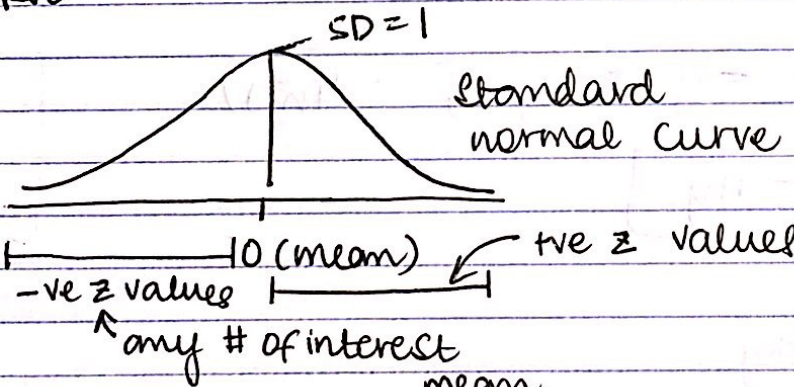
[From Histogram] Area of relevant histogram bars: EXACT
 $\sim 8\%$

[From Histogram]

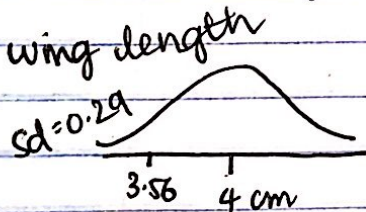


FACT: All Normal curves satisfy the empirical rule.

Our Normal curve corresponds to the STANDARD NORMAL CURVE.



area = 1 - area to the left of z
 area left to $-z$ is same as area right to z



$$z = \frac{y - \bar{y}}{s} = \frac{3.56 - 4.0}{0.29} = -1.52$$

$$\Rightarrow \frac{y - \bar{y}}{s}$$

Look up From standard table.

converting to standard units.

Chapter 2

EXPERIMENTAL DESIGN

Probabilistic

Cause: Smoke 2 packs everyday from 18 till dead
• prob. of dying from heart disease \uparrow dramatically.

SMOKING DIDN'T CAUSE DEATH BUT INCREASED RISK.

(X and Y)

Two variables are associated if when one goes \uparrow
the other tends to go \uparrow or \downarrow on average

Association is not causation.