

This Time: normal curve, experimental design

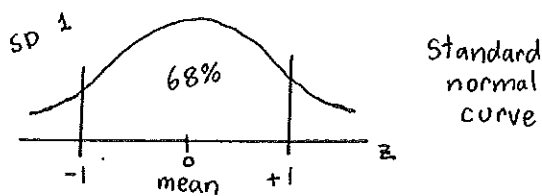
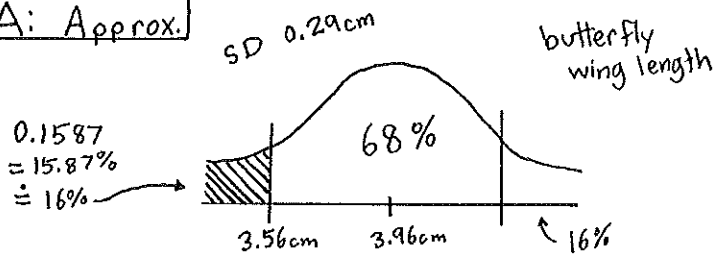
Next Time: experimental design; probability

read: DD (A) ch. 3,6; DD (B) ch. 6-8; LN pp. L-95-118

Q: What % of the butterflies had wing length ≤ 3.56 cm?

A: Exact $\frac{2}{24} = \frac{1}{12} \approx 8.3\%$

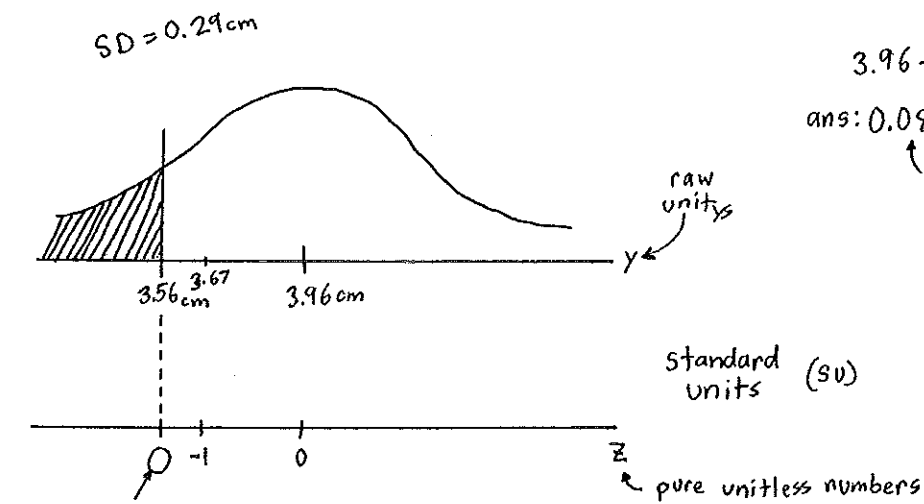
A: Approx.



Facts ① All normal curves are symmetric around their mean

② Total area under any normal curve = 100%

wing length
②
 $\begin{bmatrix} Y_1 \\ \vdots \\ Y_n \end{bmatrix}$



$3.96 - 0.29 = 3.67$
ans: $0.0838 \times 100 = 8.38\%$
from chart

$-1.38 \approx \frac{-0.40}{0.29} = \frac{3.56\cancel{\text{cm}} - 3.96\cancel{\text{cm}}}{0.29\cancel{\text{cm}}}$

$$SU = \frac{(\text{raw units}) - \text{mean}}{SD}$$

converting to standard units

$$z = \frac{y - \bar{y}}{s}$$

$$y = \bar{y} + z \cdot s$$

converting to raw units

Unit 2: Experimental Design

y = brain anatomy

cortex weight (mg)

x = psychological environment
(dich.)

