Discussion Section 10

Histogram of lead concentration

$W \rightarrow aW$ $W \rightarrow W + b$ $Y = \log(W)$

logarithms work

$10^0 = 1$ $10^1 = 10$ $10^2 = 100$ $10^3 = 1000$

$\ln(x) = \log_e x$ $\log_e 10 \approx 2.3$ $\log_{10} 1000 = 3$

$e^x$ (Napier)

$10^2 \cdot (10^3) = 10^5$ $10 \cdot 2 = e$
\[
\log_{10} 100 = 2 \quad \log_{10} 1000 = 3
\]

\[
\log_{10} 100,000 = 5
\]

\[
\log_{10} 100 + \log_{10} 1000 = \log_{10} 100,000
\]

\[
(100)(1000) = 100,000
\]

\[
(10^2)(10^3) = 10^5
\]

\[
\log_b (x \cdot y) = \log_b x + \log_b y
\]
6.80  898  1976
6.75  834  1977
6.76  862  1978
6.50  665  1982
6.40  602  1987

here we have
I = 5 groups

highly practical
for 1? about
50% bigger
not 602
F curve hist. of F

If null true

0.02%

\[ p = 0.0002 \]

\[ \text{(highly) statistically significant} \]

\( \leq 5\% \)