

$$\sigma = \sigma_0 + K \dot{\gamma}^n$$

Diagram illustrating the equation $\sigma = \sigma_0 + K \dot{\gamma}^n$ with labels:

- σ_0 is labeled "PARAMETER" with an arrow pointing to it.
- K is labeled "PARAMETER" with an arrow pointing to it.
- $\dot{\gamma}^n$ is labeled "PARAMETER" with an arrow pointing to it.
- σ and $\dot{\gamma}$ are labeled "VARIABLES" with arrows pointing to them.

σ_0 CAN BE MEASURED (see previous slide)

σ extrapolated [BUT IT IS KNOWN]

We need to estimate K and n
 Let's use logarithmic function

$$\log \sigma = \log (\sigma_0 + K \dot{\gamma}^n) \neq$$

$$\log \sigma_0 + \log (K \dot{\gamma}^n)$$

$$\sigma - \sigma_0 = K \dot{\gamma}^n$$

$$\log (\sigma - \sigma_0) = \log (K \dot{\gamma}^n) = \log K + n \log \dot{\gamma}$$

Brownian Motion

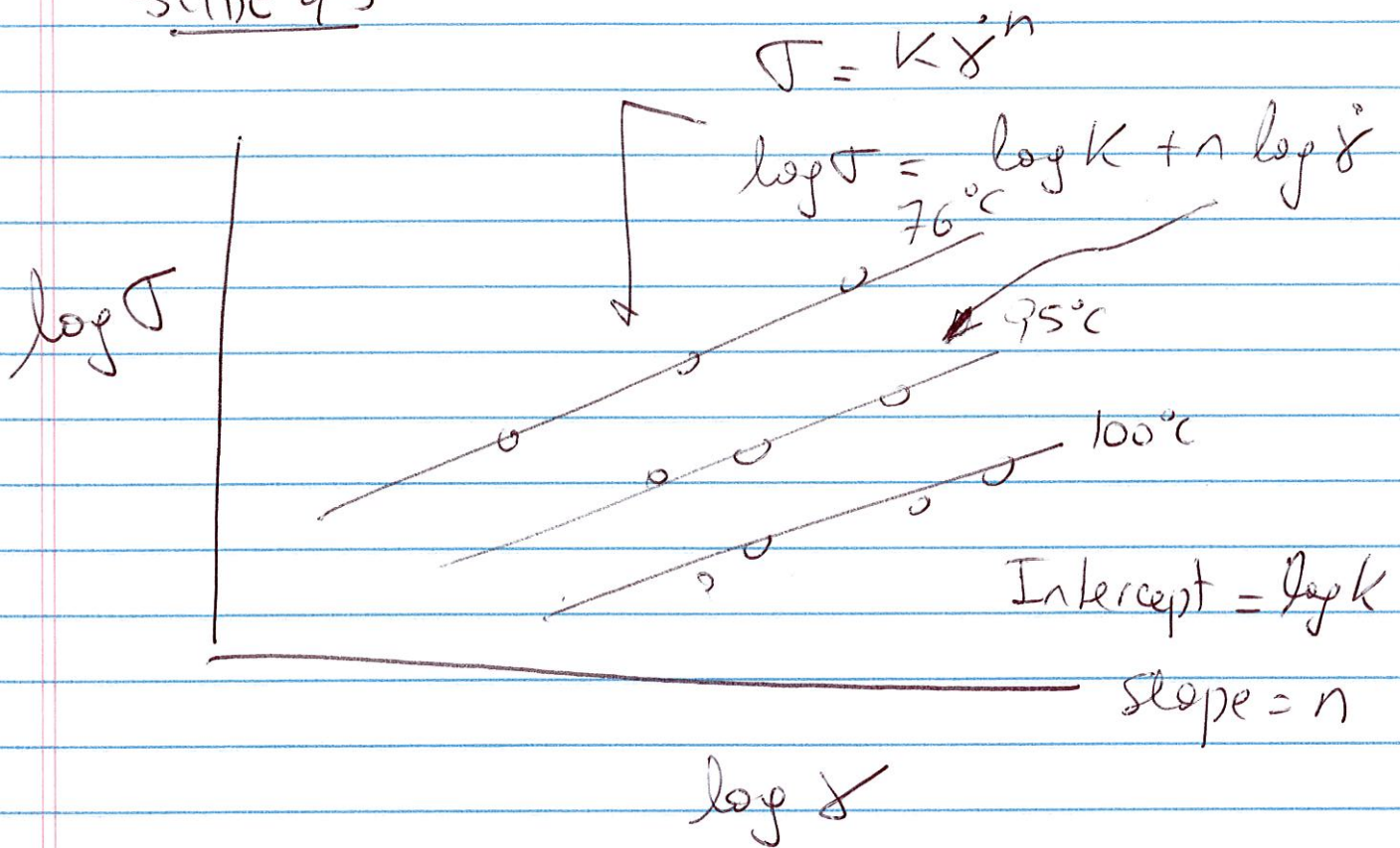
Absolute
Temperature

(2)

$$E_B = K_B T$$

↑
BOLTZMAN CONSTANT

SLIDE 43



How do we calculate K & n from the plotted data?

Isaiah

(3)

