

$$\alpha \sim \text{Normal}(171.1, 20)$$

$$\beta \sim \text{Normal}(0, 10)$$

$$\mu_i = \alpha + \beta(x_i - \bar{x})$$

$$\sigma \sim \text{Uniform}(0, 50)$$

$$h[i] \sim \text{Normal}(\mu_i, \sigma)$$


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graph TD; A["α ~ Normal(171.1, 20)"] --> C["μ_i = α + β(x_i - x̄)"]; B["β ~ Normal(0, 10)"] --> C; C --> E["h[i] ~ Normal(μ_i, σ)"]; D["σ ~ Uniform(0, 50)"] --> E;
```