

# Enough grid approximation

We'll use quadratic approximation for the rest of the first half of the course.

$$W_i \sim \text{Normal}(\mu_i, \sigma)$$

$$\mu_i = \alpha + \beta H_i$$

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

$$\beta \sim \text{Uniform}(0, 1)$$

$$\sigma \sim \text{Uniform}(0, 10)$$

```
m3.1 <- quap(
  alist(
    W ~ dnorm(mu, sigma),
    mu <- a + b*H,
    a ~ dnorm(0, 10),
    b ~ dunif(0, 1),
    sigma ~ dunif(0, 10)
  ) , data=list(W=W, H=H) )
```