## Easy

### E1

$y_i \sim Normal(\mu, \sigma)$ is the likelihood.

### E2

There are two parameters: $\mu$ and $\sigma$.

### E3

$$
\begin{aligned}
[\mu, \sigma \mid y] \propto & \prod_i^n Normal(y_i \mid \mu, \sigma) \times \\
& Normal(\mu \mid 0, 10) \times \\
& Uniform(\sigma \mid 0, 10)
\end{aligned}
$$

### E4

$\mu_i = \alpha + \beta x_i$ is the linear model.

### E5

There are 3 parameters: $\alpha$, $\beta$, and $\sigma$.

## Medium