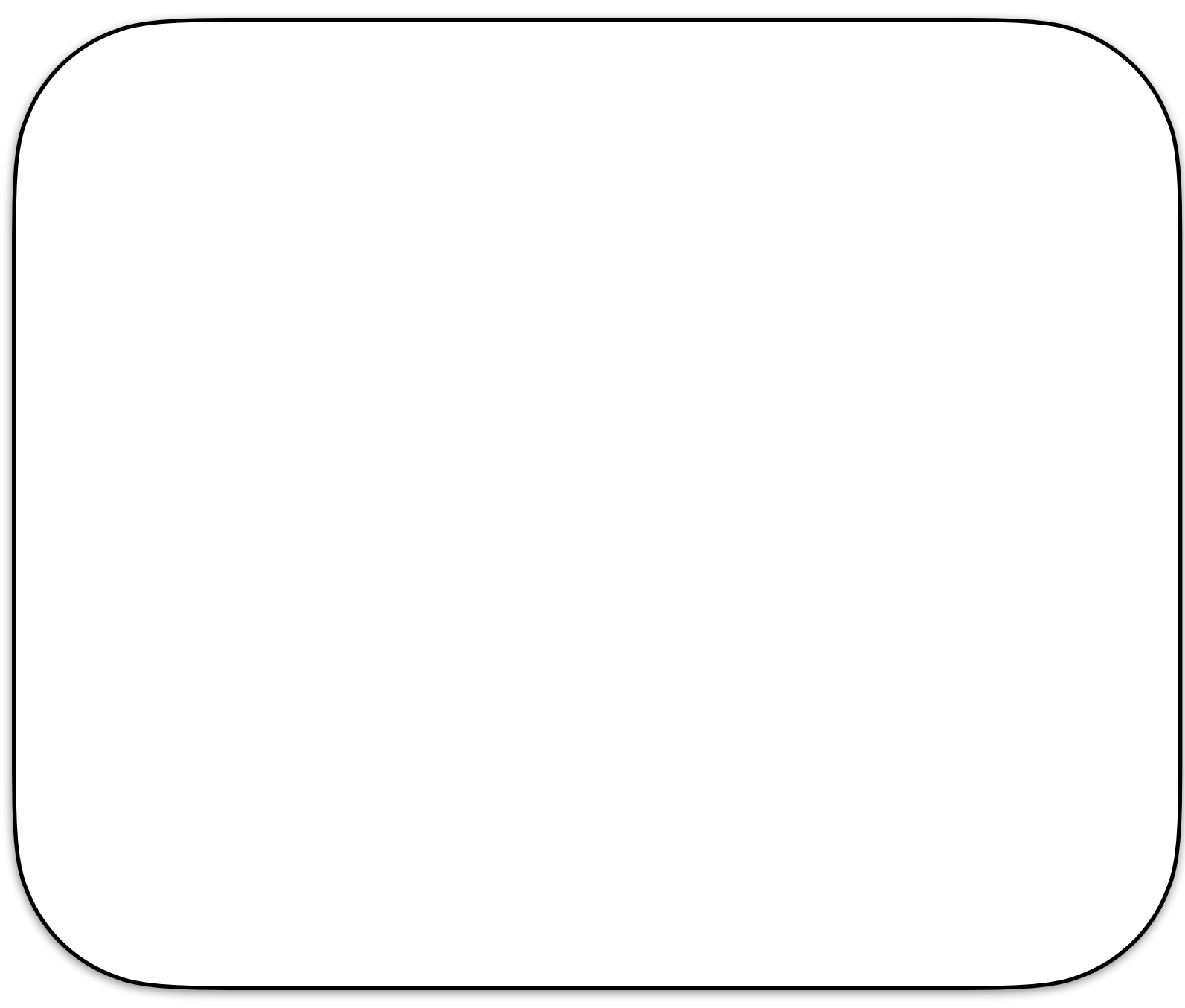


POSTERIOR SAMPLES



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

$$\mu_i = \alpha + \beta x_i$$

$$\alpha \sim \text{Normal}(0, 20)$$

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

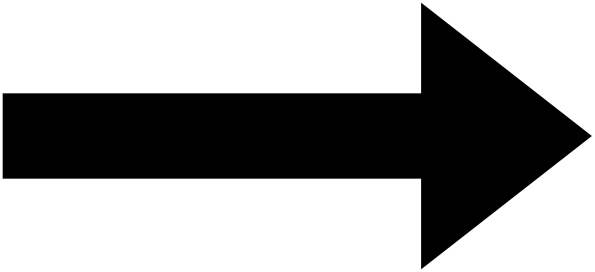
$$\sigma \sim \text{Exponential}(1)$$

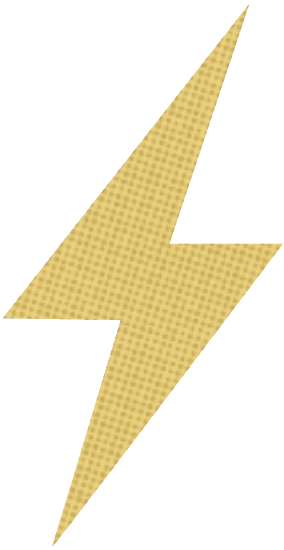
```
> samples
```

```
# A tibble: 2,000 × 3
```

	a	b	sigma
	<dbl[1d]>	<dbl[1d]>	<dbl[1d]>
1	115.	0.889	4.78
2	109.	1.02	5.30
3	112.	0.928	5.07
4	111.	0.949	5.30
5	111.	0.955	5.04
6	115.	0.872	5.19
7	109.	1.01	5.13
8	117.	0.844	5.00
9	115.	0.882	4.94
10	112.	0.939	4.95

```
# ... with 1,990 more rows
```





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!

POSTERIOR SAMPLES

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

$$\mu_i = \alpha + \beta x_i$$

$$\alpha \sim \text{Normal}(0, 20)$$

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

$$\sigma \sim \text{Exponential}(1)$$

FIT!



```
> samples
# A tibble: 2,000 × 3
      a          b      sigma
  <dbl[1d]> <dbl[1d]> <dbl[1d]>
1    115.      0.889    4.78
2    109.      1.02     5.30
3    112.      0.928    5.07
4    111.      0.949    5.30
5    111.      0.955    5.04
6    115.      0.872    5.19
7    109.      1.01     5.13
8    117.      0.844    5.00
9    115.      0.882    4.94
10   112.      0.939    4.95
# ... with 1,990 more rows
```

POSTERIOR MEAN ESTIMATES

$E_y[\theta] =$

```
> colMeans(samples)
      a      b    sigma
112.9296580  0.9253803  5.0453651
```