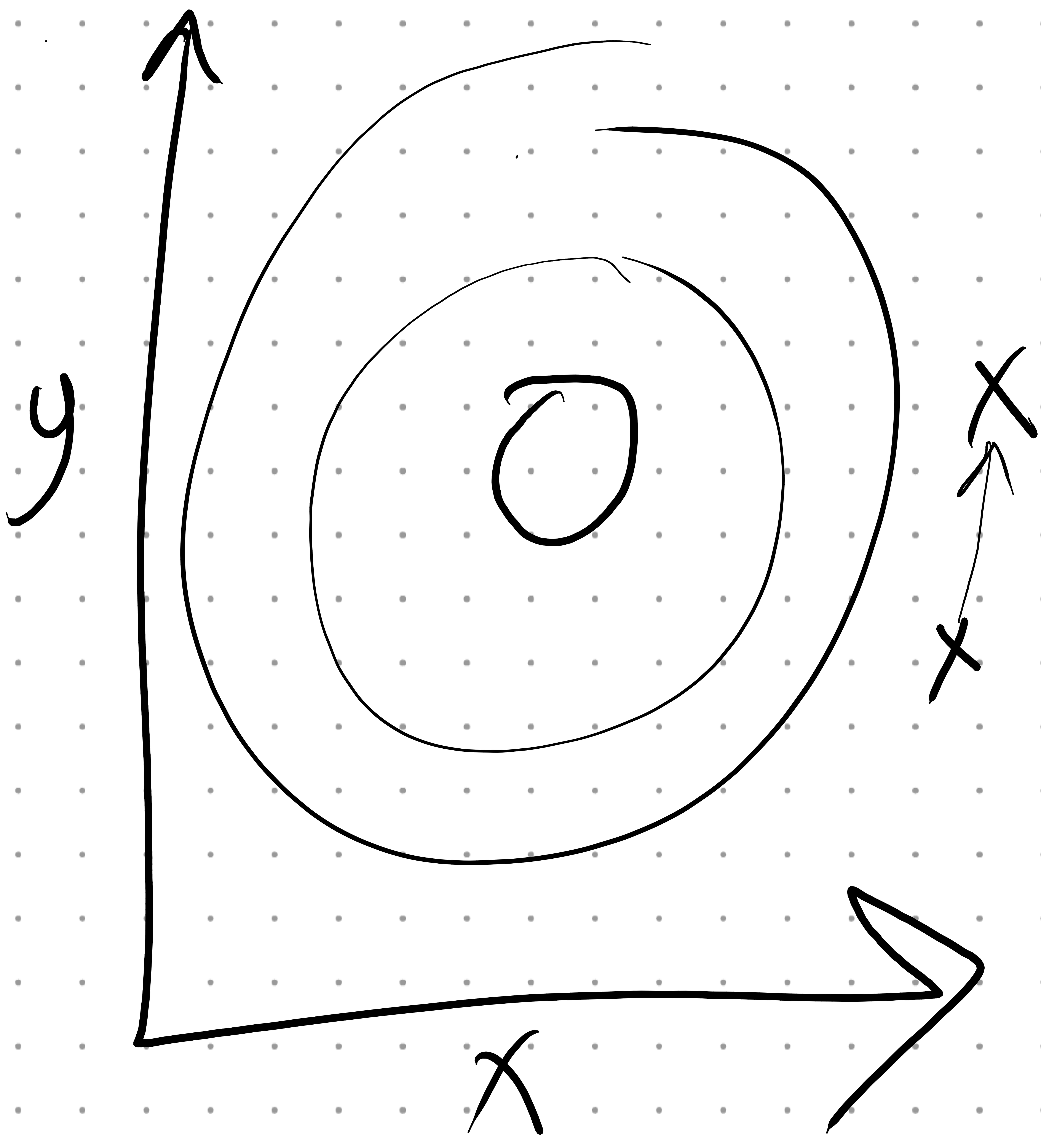
$$N = \frac{1}{\sqrt{2\pi^{n}|C|}}$$



$$P_2 = \frac{p(\theta_2)}{p(\theta_1)}$$

data covariance

$$p(\theta|d) = N \exp\left[-\frac{1}{2}(d - M(\theta))^T C^{-1} (d - M(\theta))\right]$$

$$C = \mathrm{diag}(\sigma_1^2, \sigma_2^2)$$

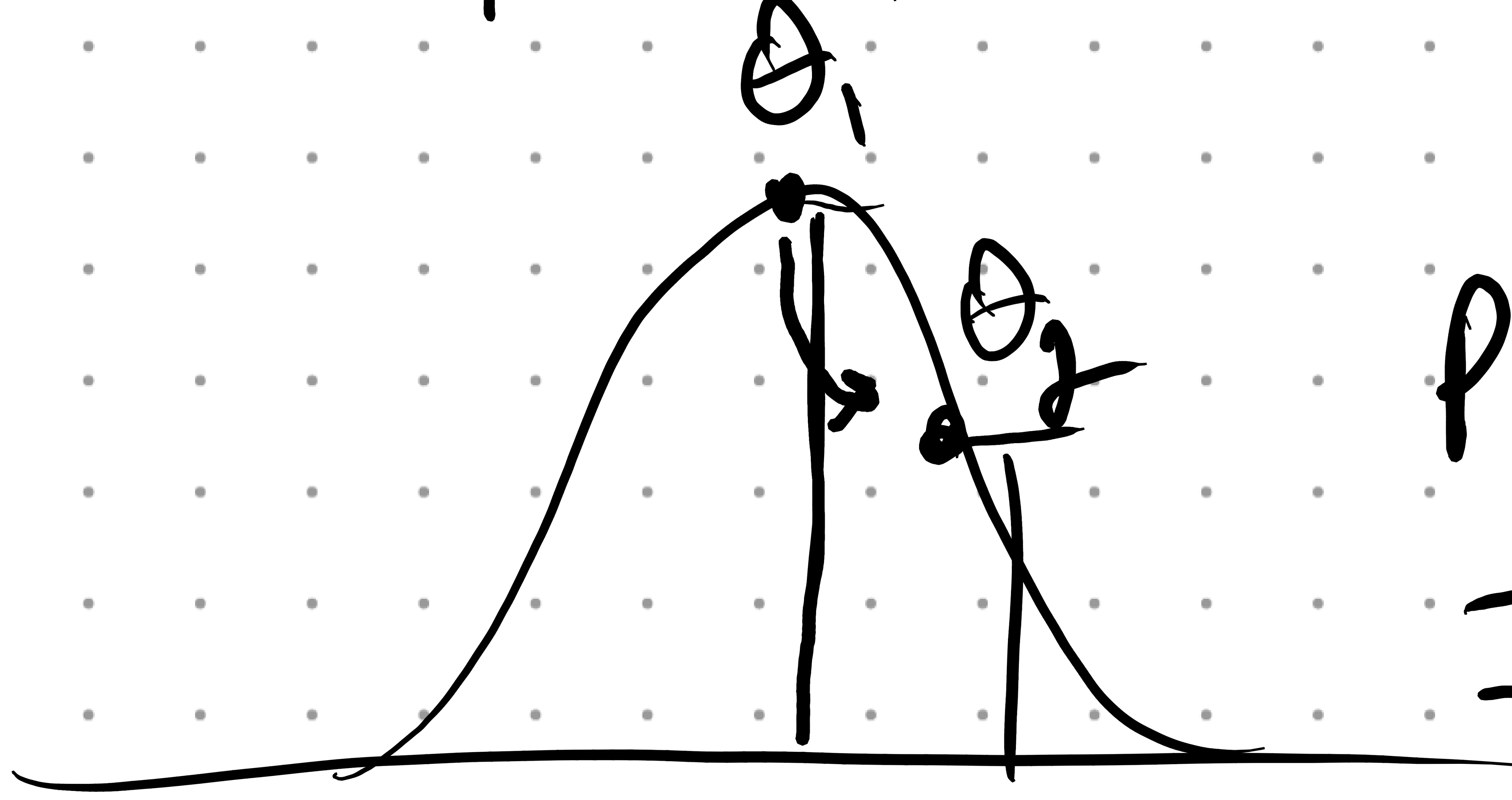
$$r = d - M(\theta)$$

$$p(\theta|d) \propto \exp\left(-\frac{1}{2} r^T C^{-1} r\right)$$

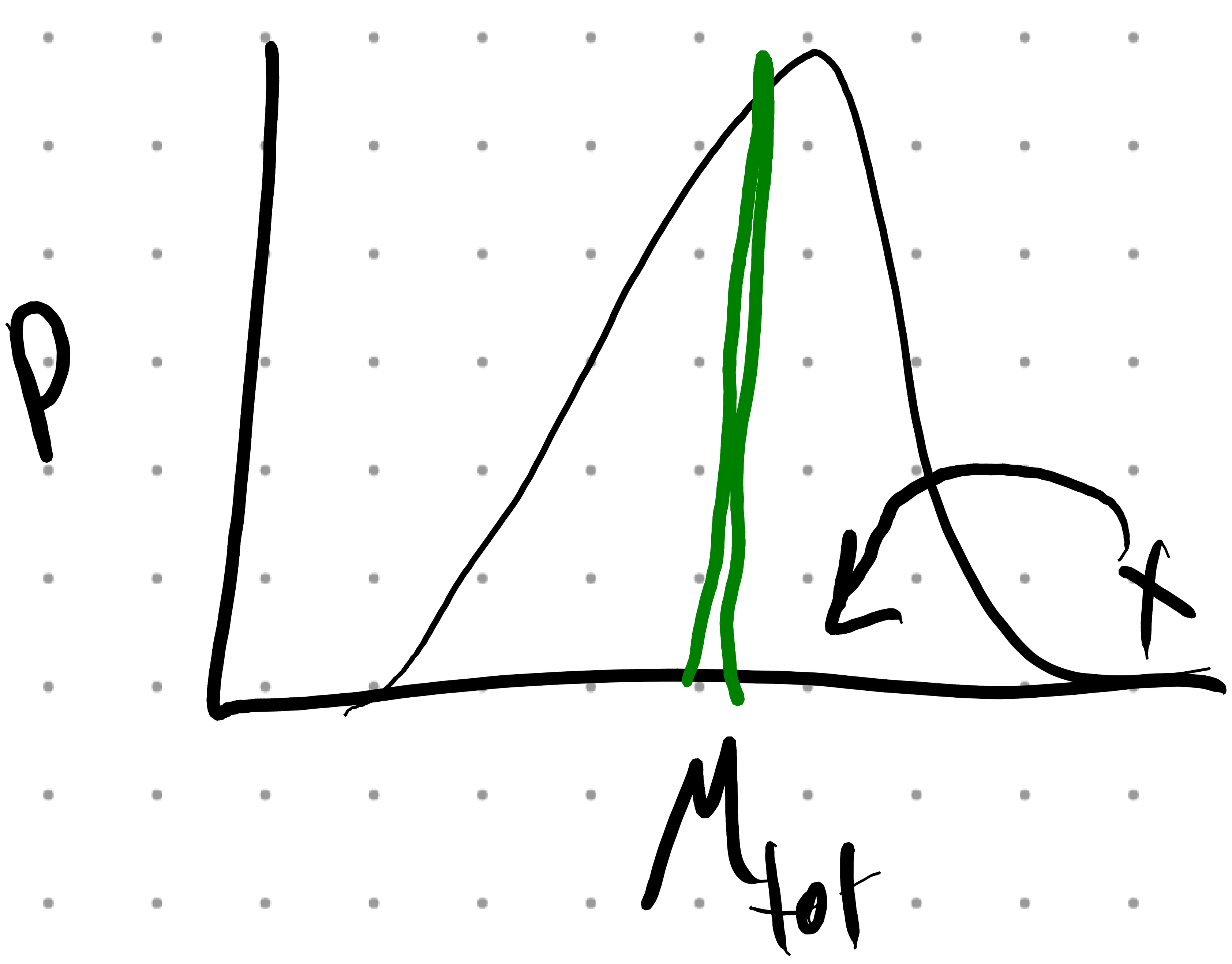
$$\ln P(\theta|d) \propto A - \frac{1}{2} r^T C(\theta)^{-1} r$$

$$H = \frac{P(\theta_2|d)}{P(\theta_1|d)}$$

$$\ln H = r_{\theta_1}^T C^{-1} r_{\theta_1} - r_{\theta_2}^T C^{-1} r_{\theta_2}$$

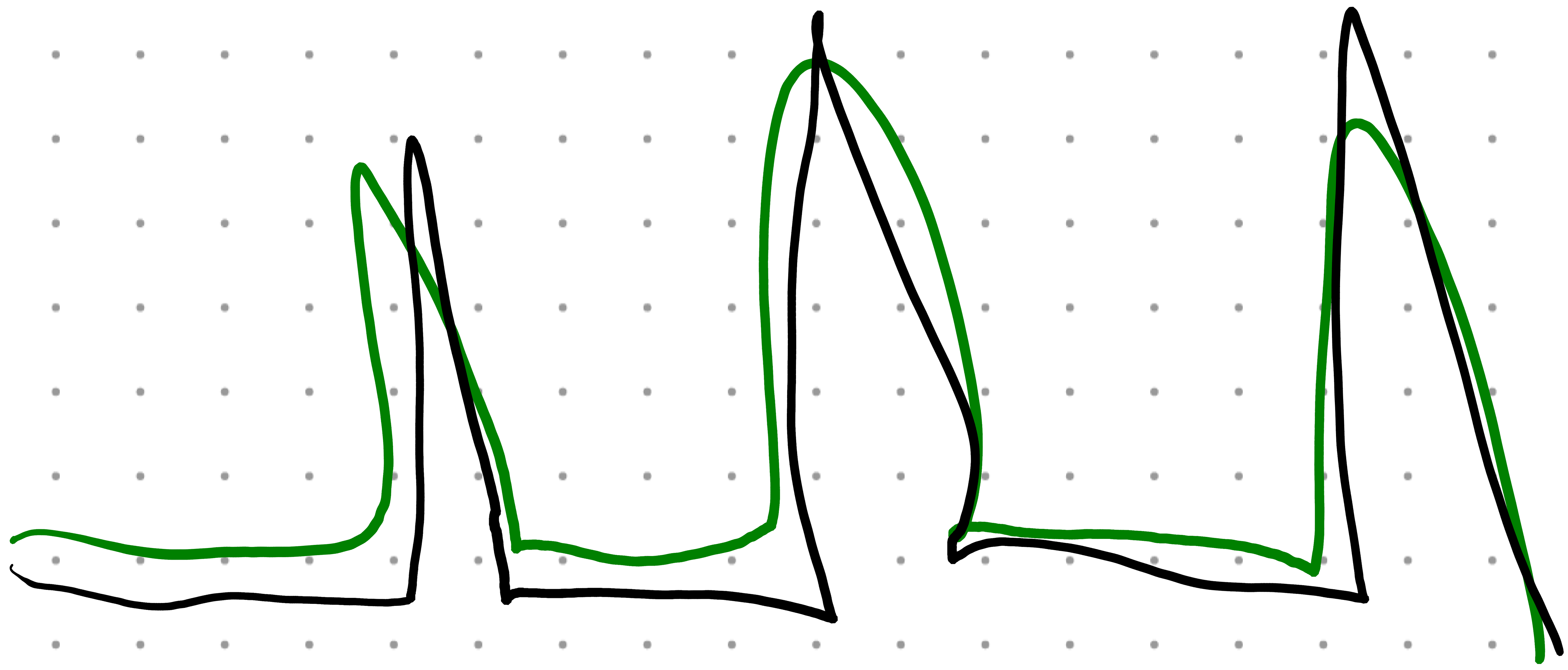


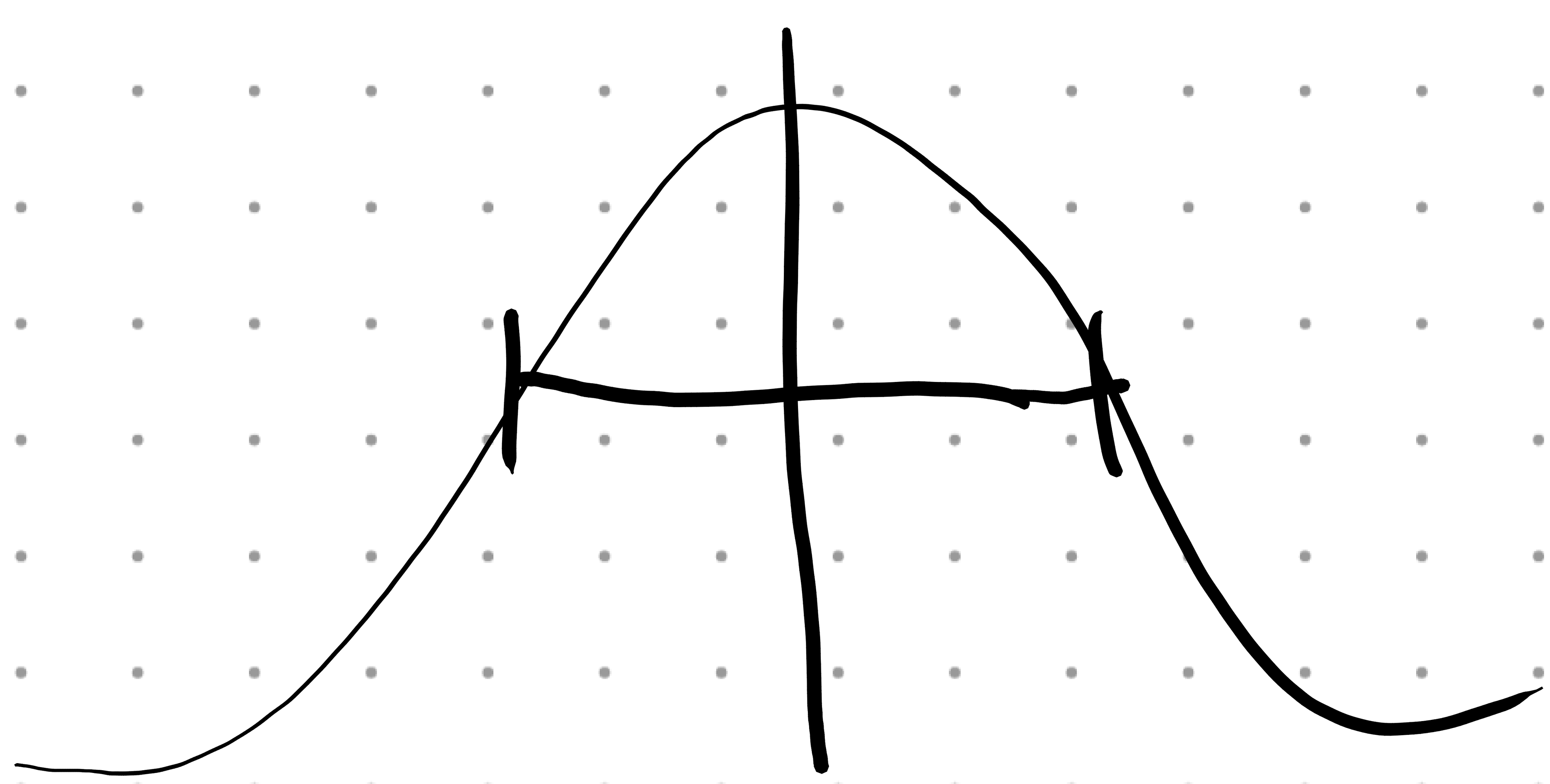
$$P(\theta_1 \to \theta_2) = 1 - P(\theta_2 \to \theta_1)$$

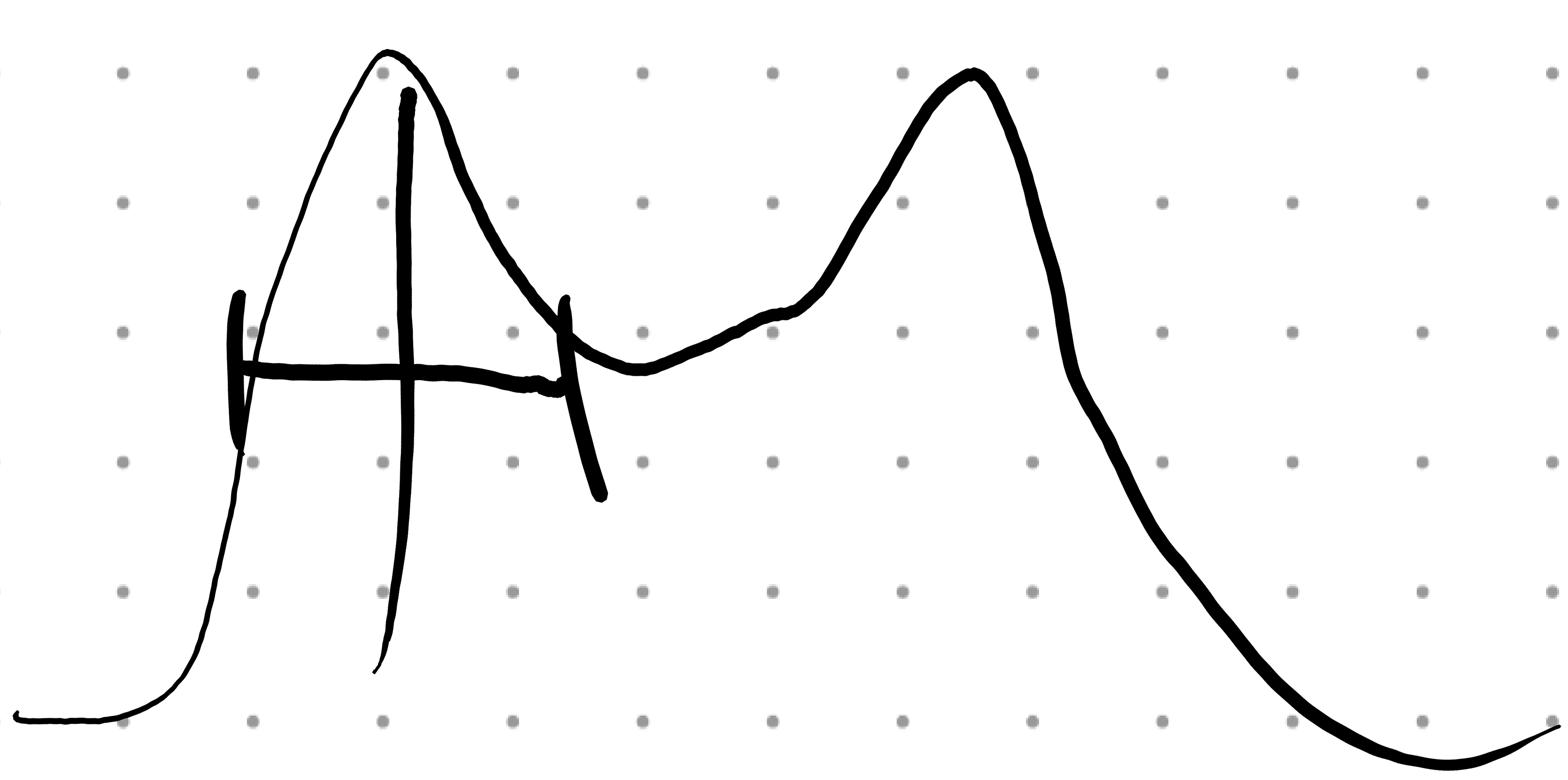


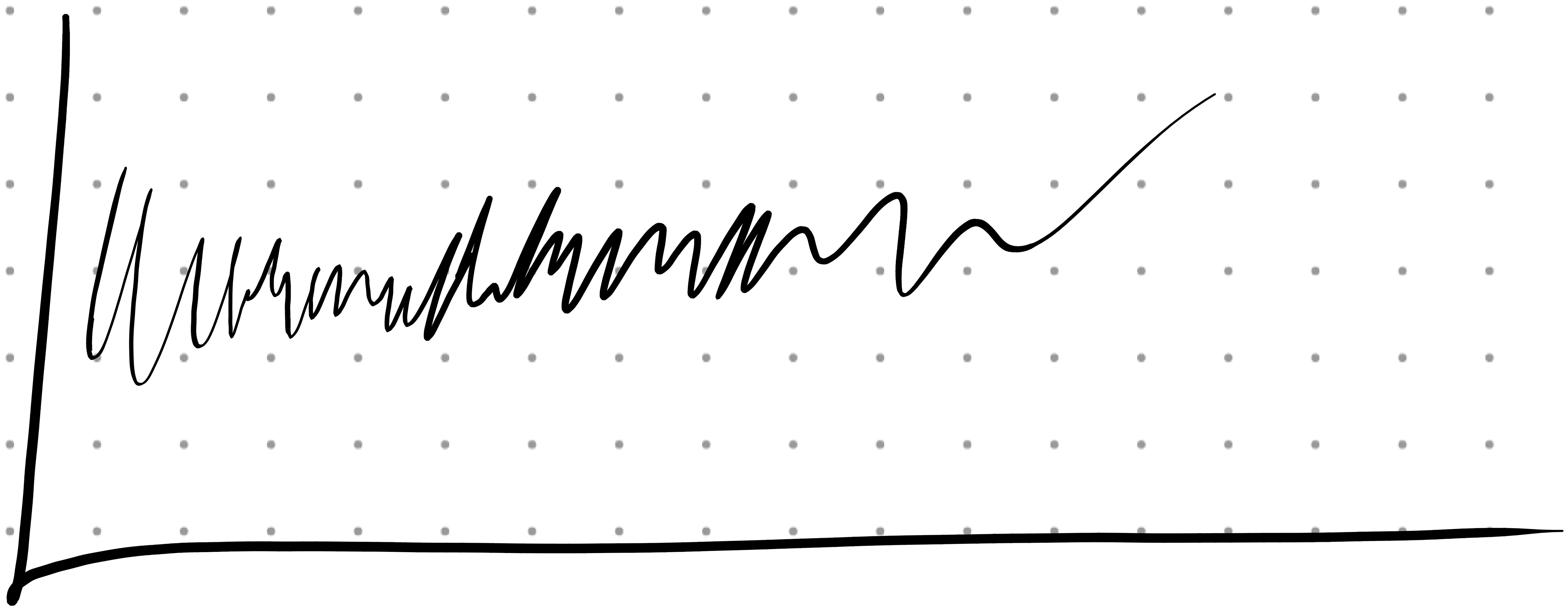
$$\underset{\text{posterior}}{P(\theta|d)} = \frac{\overset{\text{likelihood}}{P(d|\theta)}\,\overset{\text{prior}}{P(\theta)}}{\underset{\text{evidence}}{P(d)}}$$

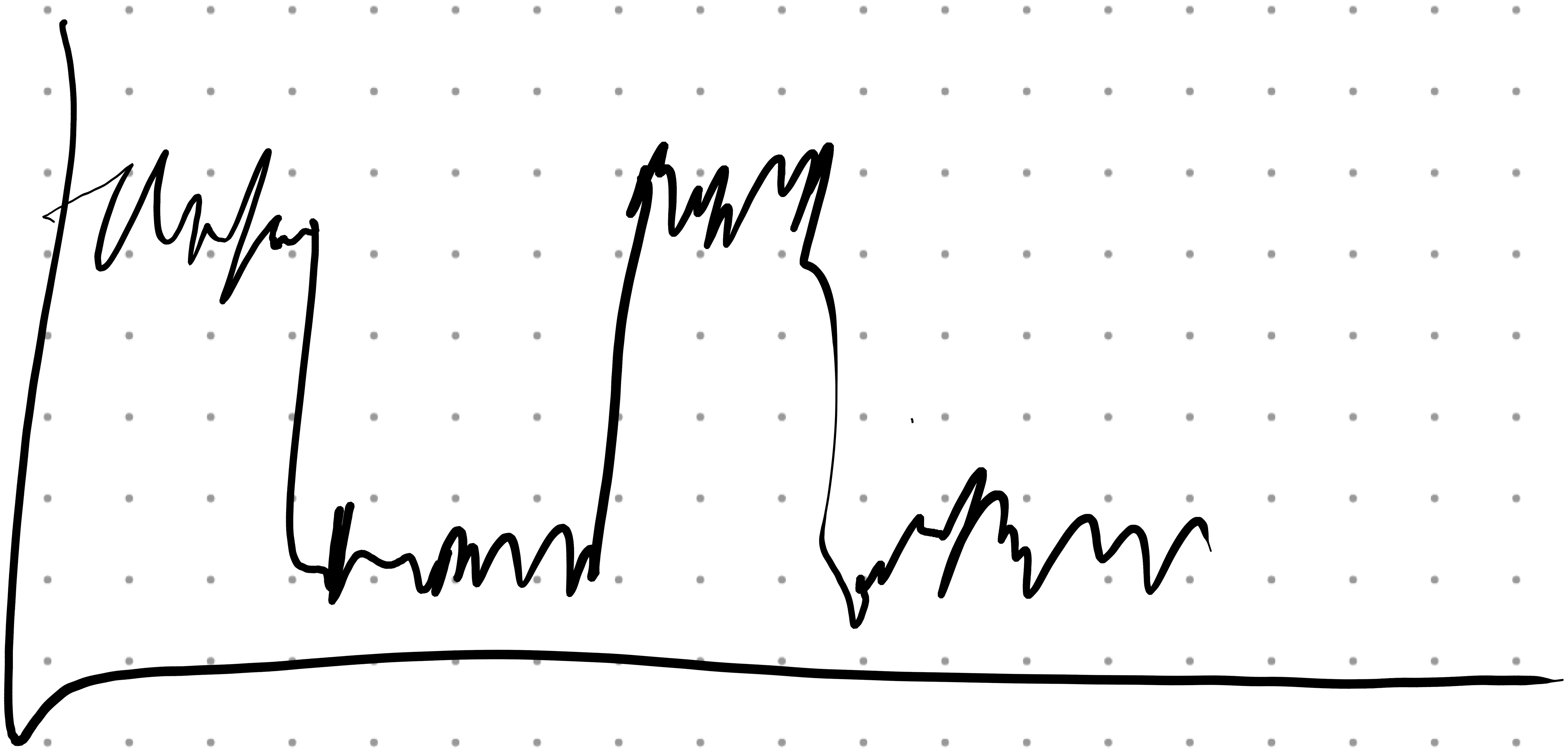
$$\frac{P(\theta_2|d)}{P(\theta_1|d)} = \frac{P(d|\theta_2)\,\cancel{P(\theta_2)}}{P(d|\theta_1)\,\cancel{P(\theta_1)}}$$

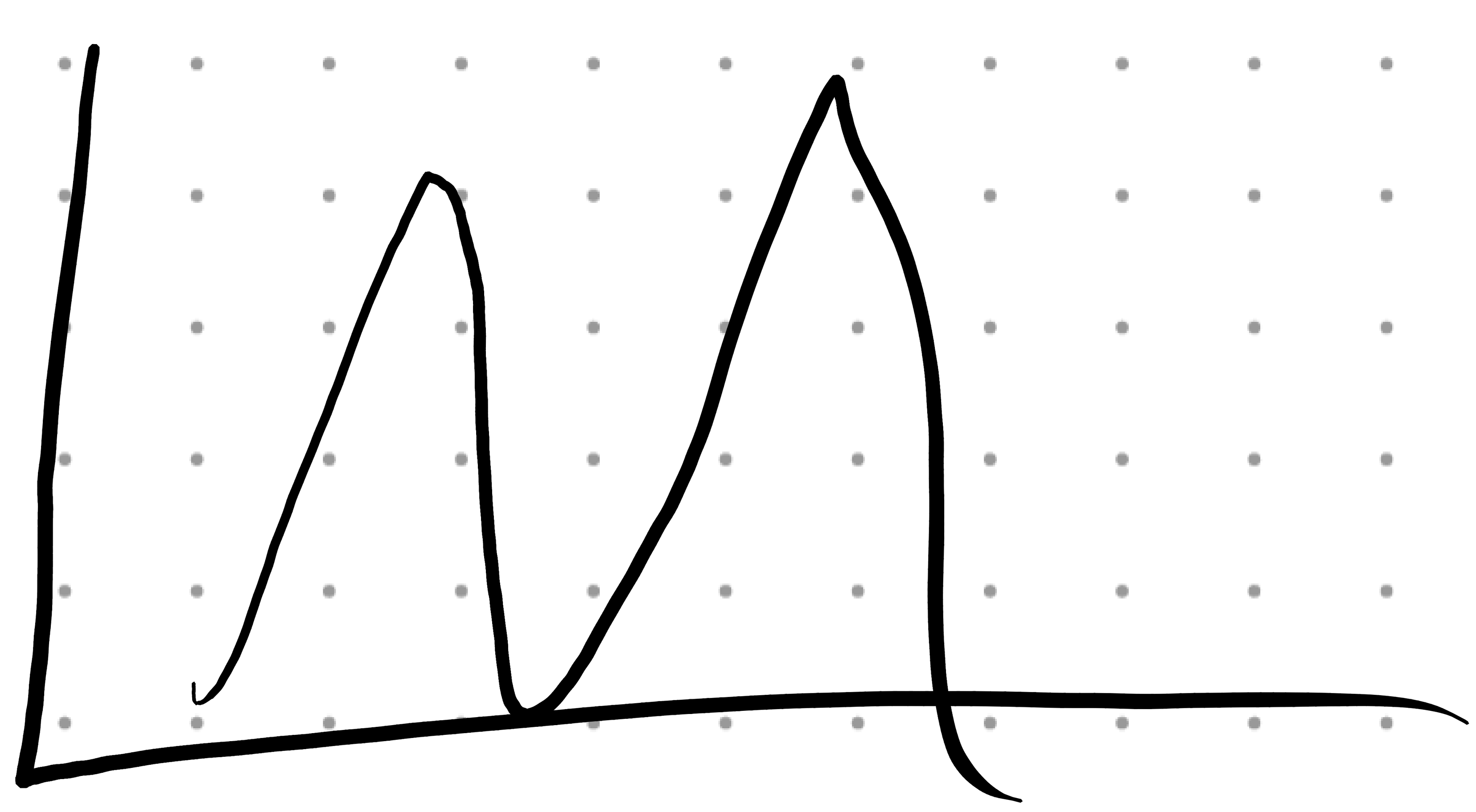


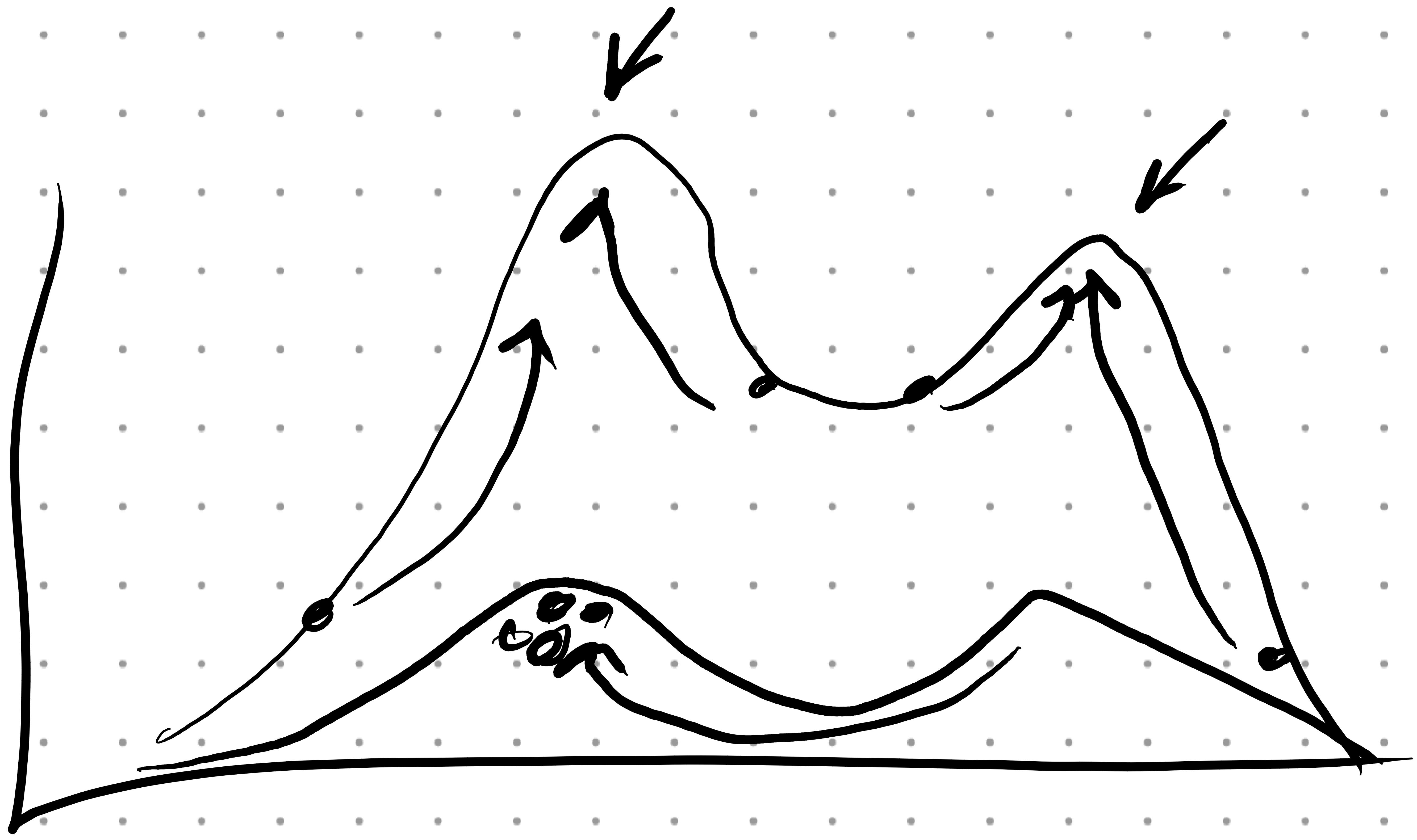








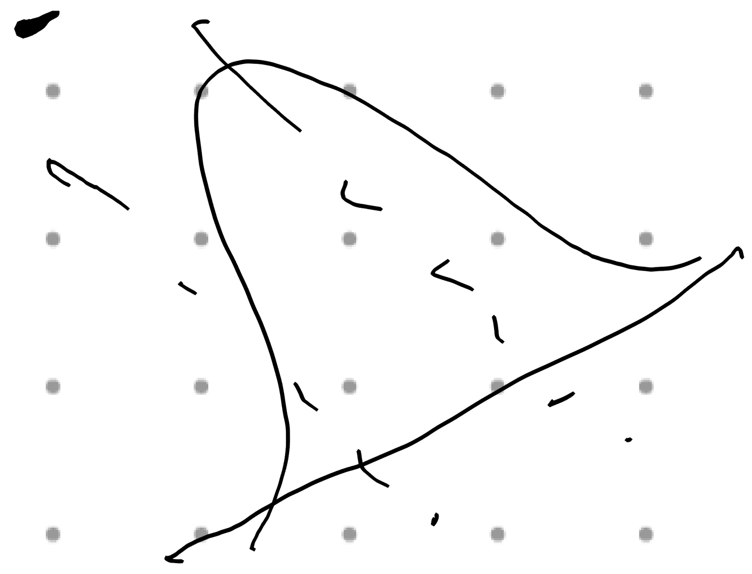




$$P(d|\theta)^{1/T} \quad T \in [1, \infty)$$

$$\frac{P(d|\theta_2)}{P(d|\theta_1)} = 0.1$$

```
fig = corner.corner()
fig.save()
```



$$\left(\frac{P(d|\theta_2)}{P(d|\theta_1)}\right)^{1/4} = 0.1^{1/4}$$