bayes_formula_two_models

$$P(M_i|\mathcal{D})=\frac{P(\mathcal{D}|M_i)P(M_i)}{P(\mathcal{D})}$$

$$\frac{P(M_1|\mathcal{D})}{P(M_2|\mathcal{D})}=\frac{P(\mathcal{D}|M_1)}{P(\mathcal{D}|M_2)}\cdot\frac{P(M_1)}{P(M_2)}\equiv\frac{Z_1}{Z_2}\cdot\frac{P(M_1)}{P(M_2)}$$

P(M_i divides {font fixed "D"}) = {P({font fixed "D"} divides M_i) P(M_i)} over { P({font fixed "D"}) }
newline
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{P(M_1 divides {font fixed "D"})} over {P(M_2 divides {font fixed "D"})} = {P({font fixed "D"} divides M_1) } over { P({font fixed "D"} divides M_2) } cdot {{P(M_1)} over { P(M_2) } } equiv {Z_1 over Z_2 } cdot {{P(M_1)} over { P(M_2) } }