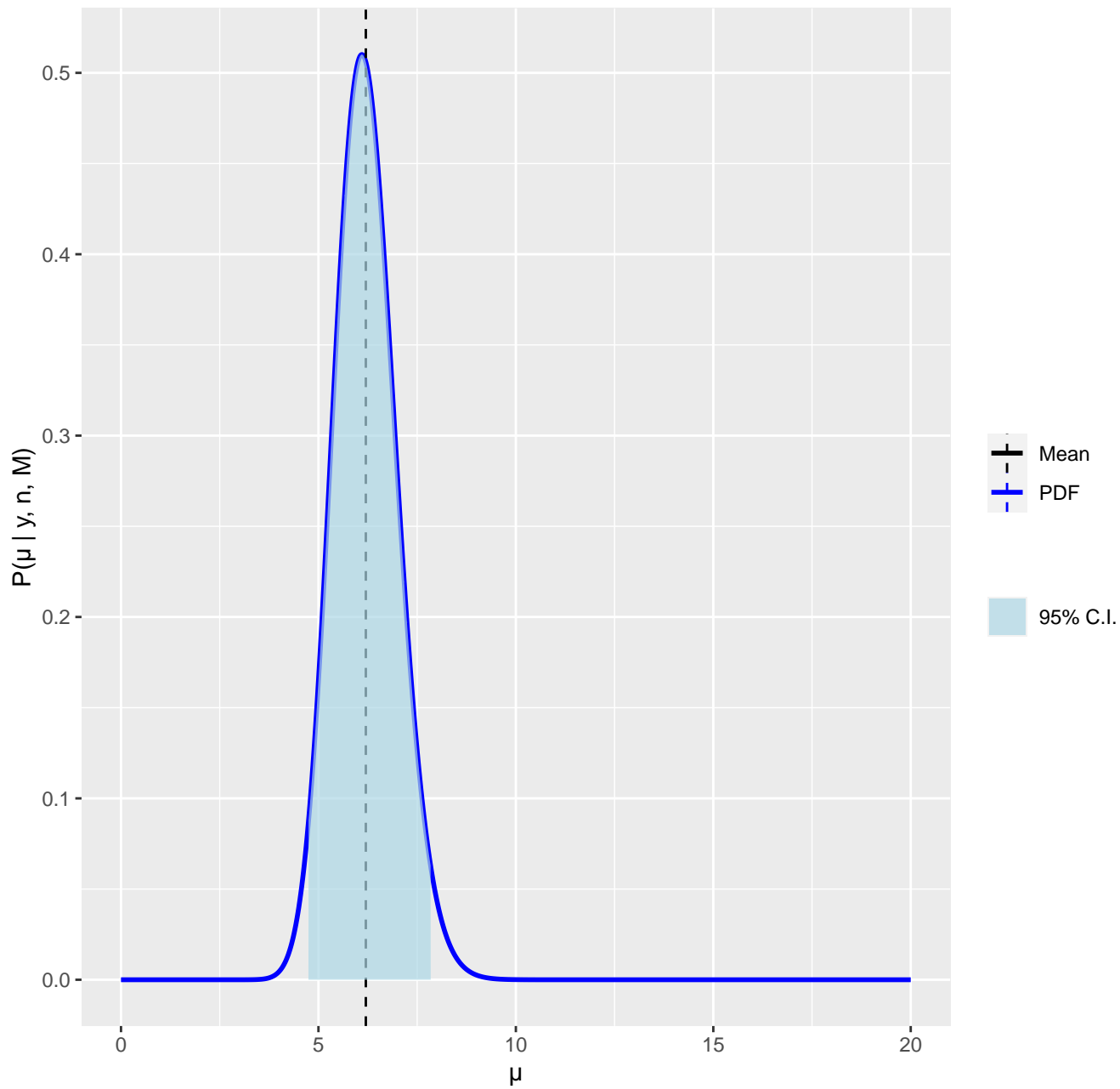
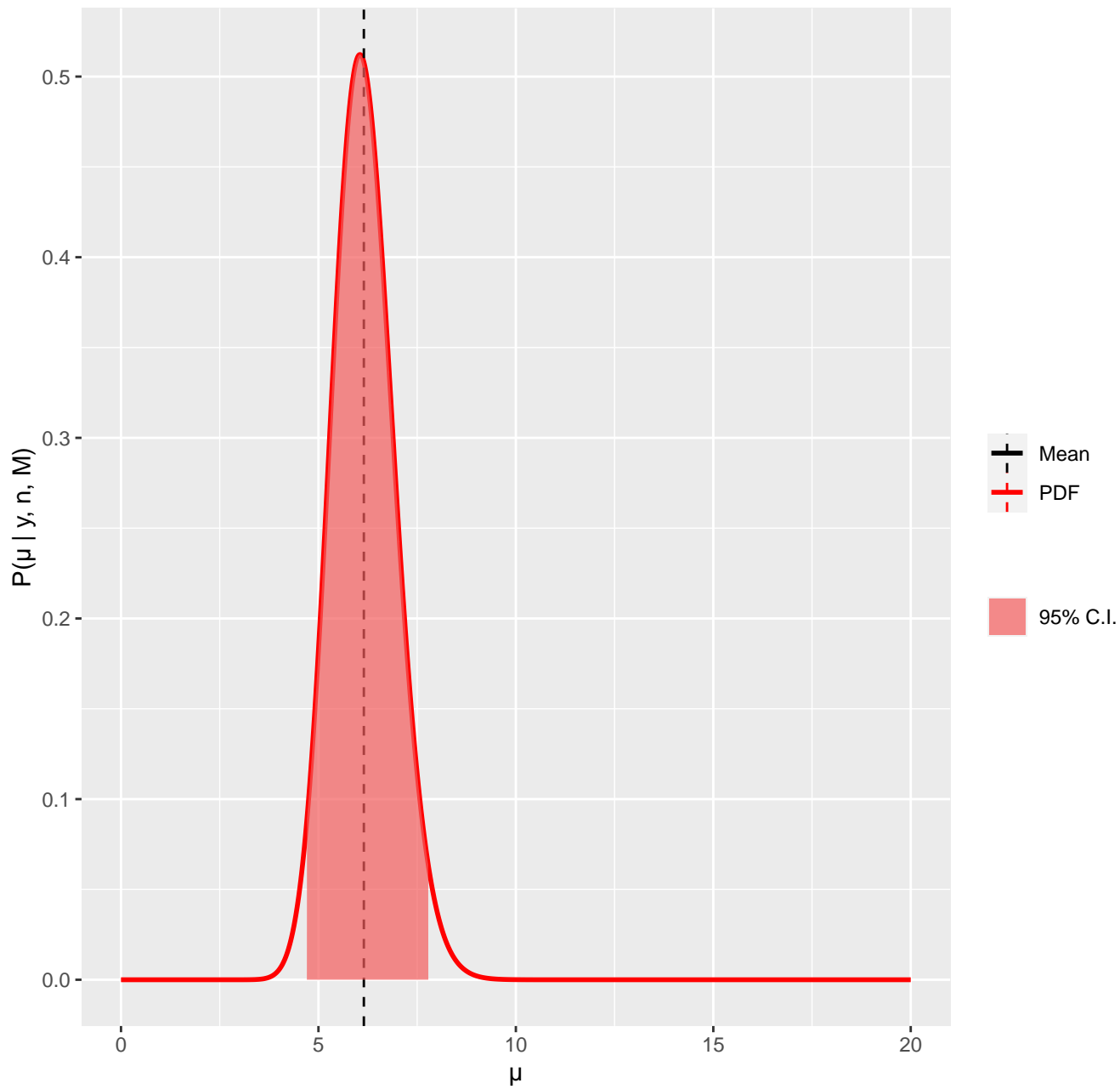


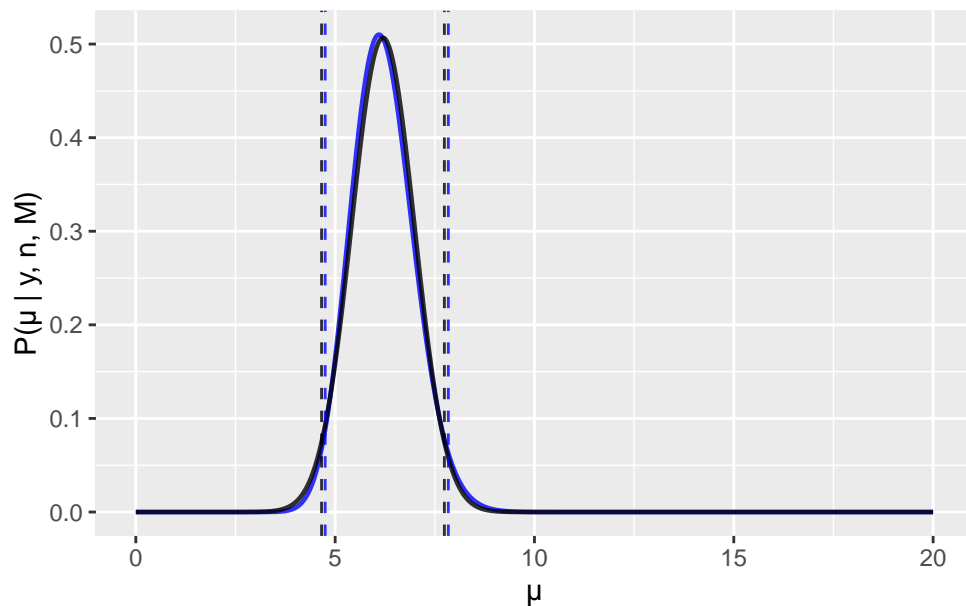
Ex. 1 : Posterior from Uniform Prior



Ex. 1 : Posterior from Jeffrey's Prior

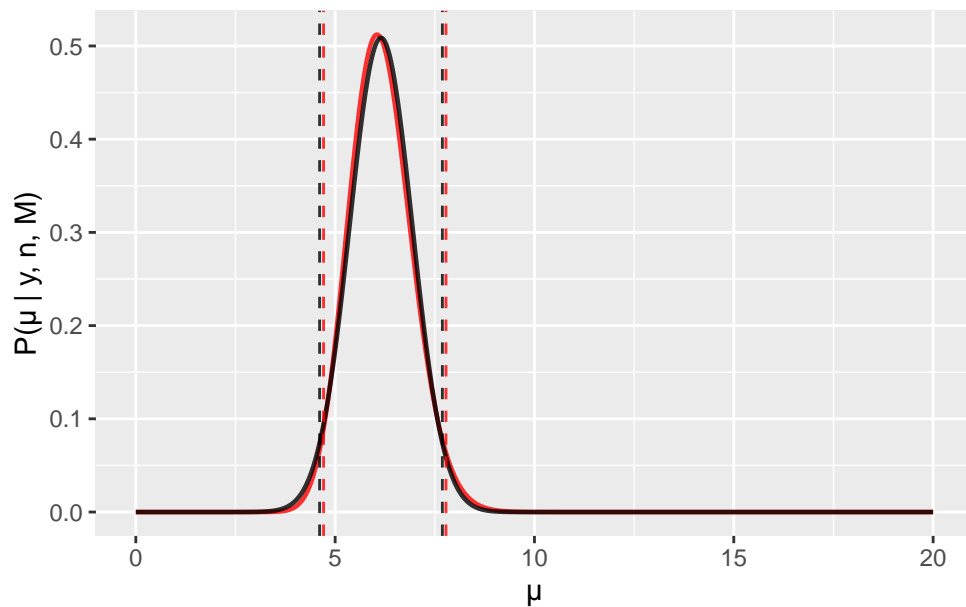


**A** Ex. 1 : Posterior from Uniform Prior



Normal Approximation  
Posterior

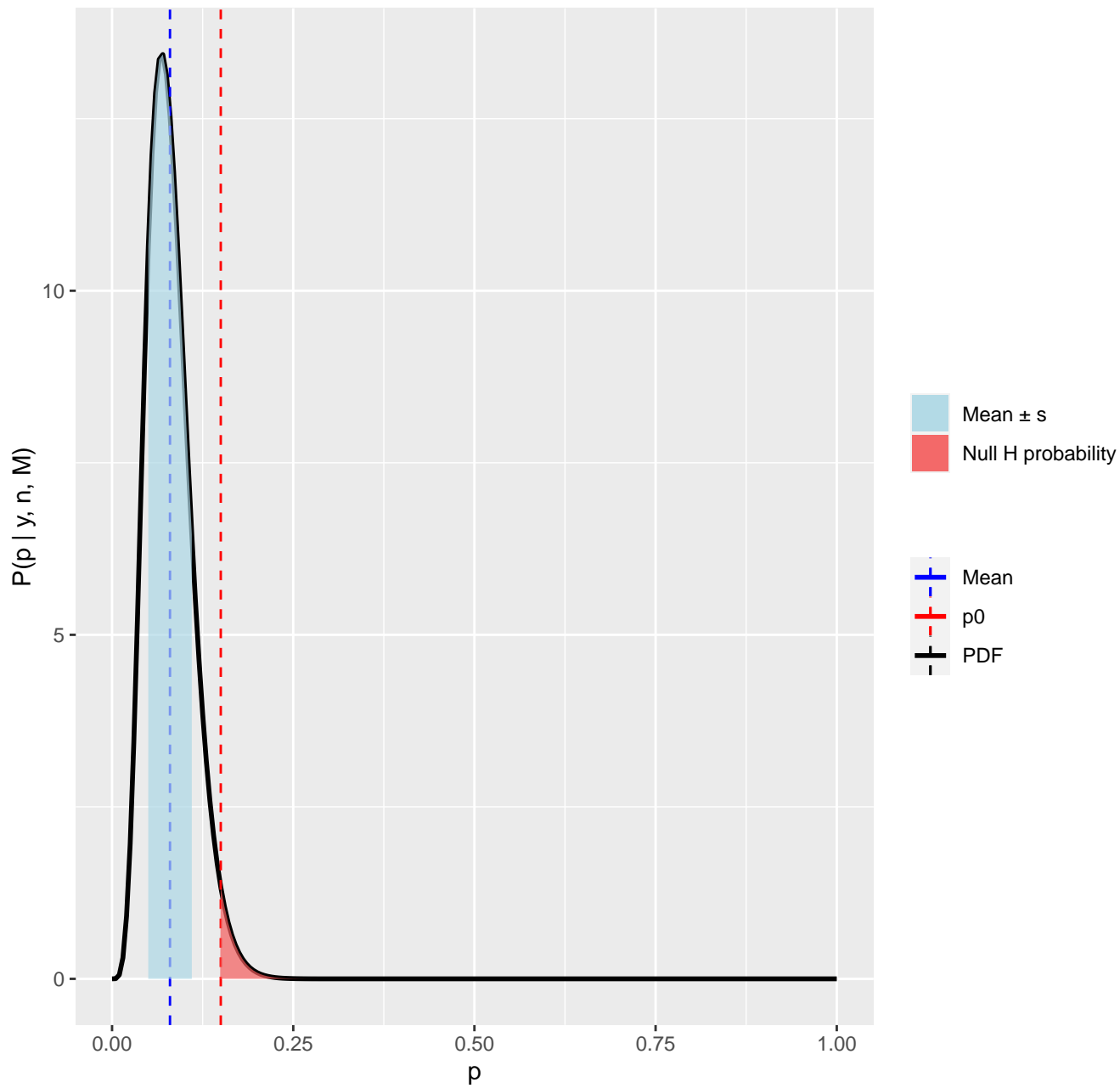
**B** Ex. 1 : Posterior from Jeffrey's Prior



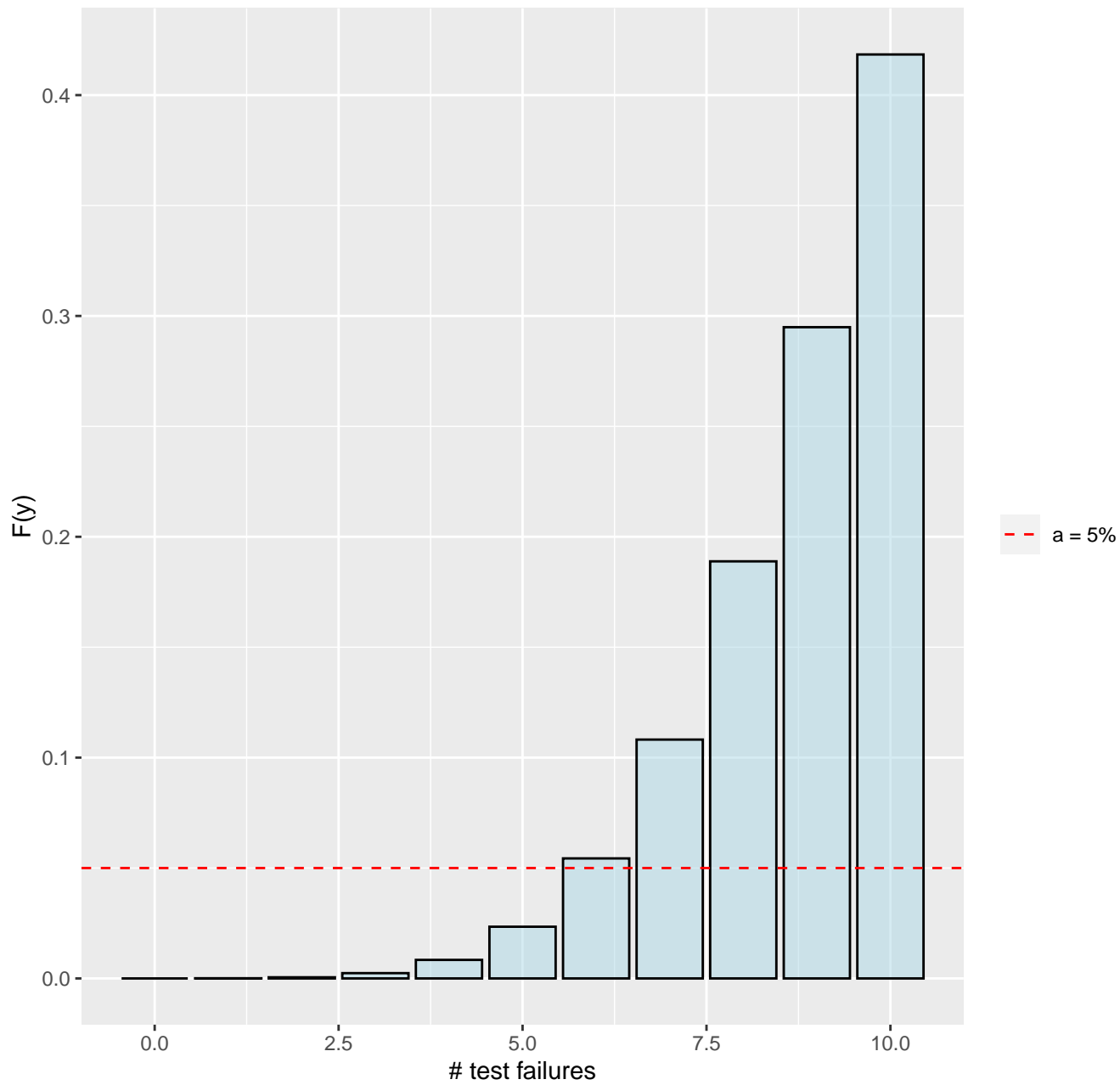
Normal Approximation  
Posterior

	Uniform P.	Nor. App. Uniform	Jeffrey's P.	Nor. App. Jeffrey's
<i>Mean</i>	6.2	6.2	6.15	6.15
<i>Var</i>	0.62	0.62	0.615	0.615
<i>Median</i>	6.17	6.2	6.12	6.15
<i>95% C.I. Left</i>	4.75	4.66	4.71	4.61
<i>95% C.I. Right</i>	7.84	7.74	7.78	7.69

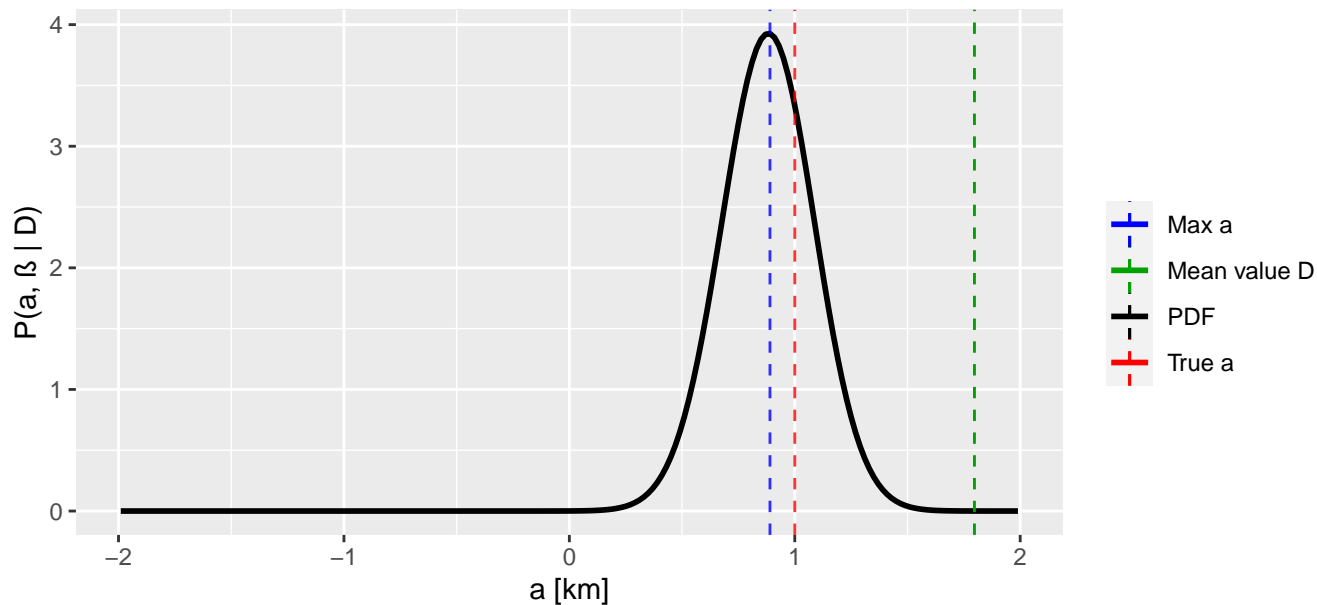
Ex. 2 : Posterior from Beta Prior



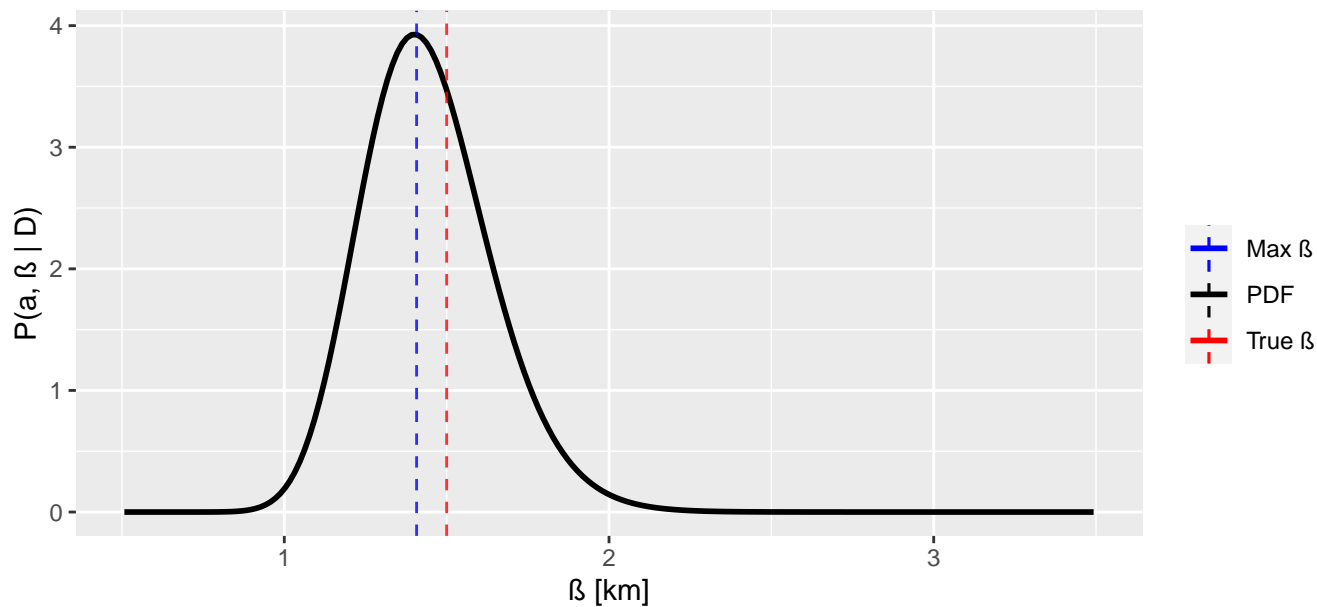
## Ex. 2 : Frequentist Test



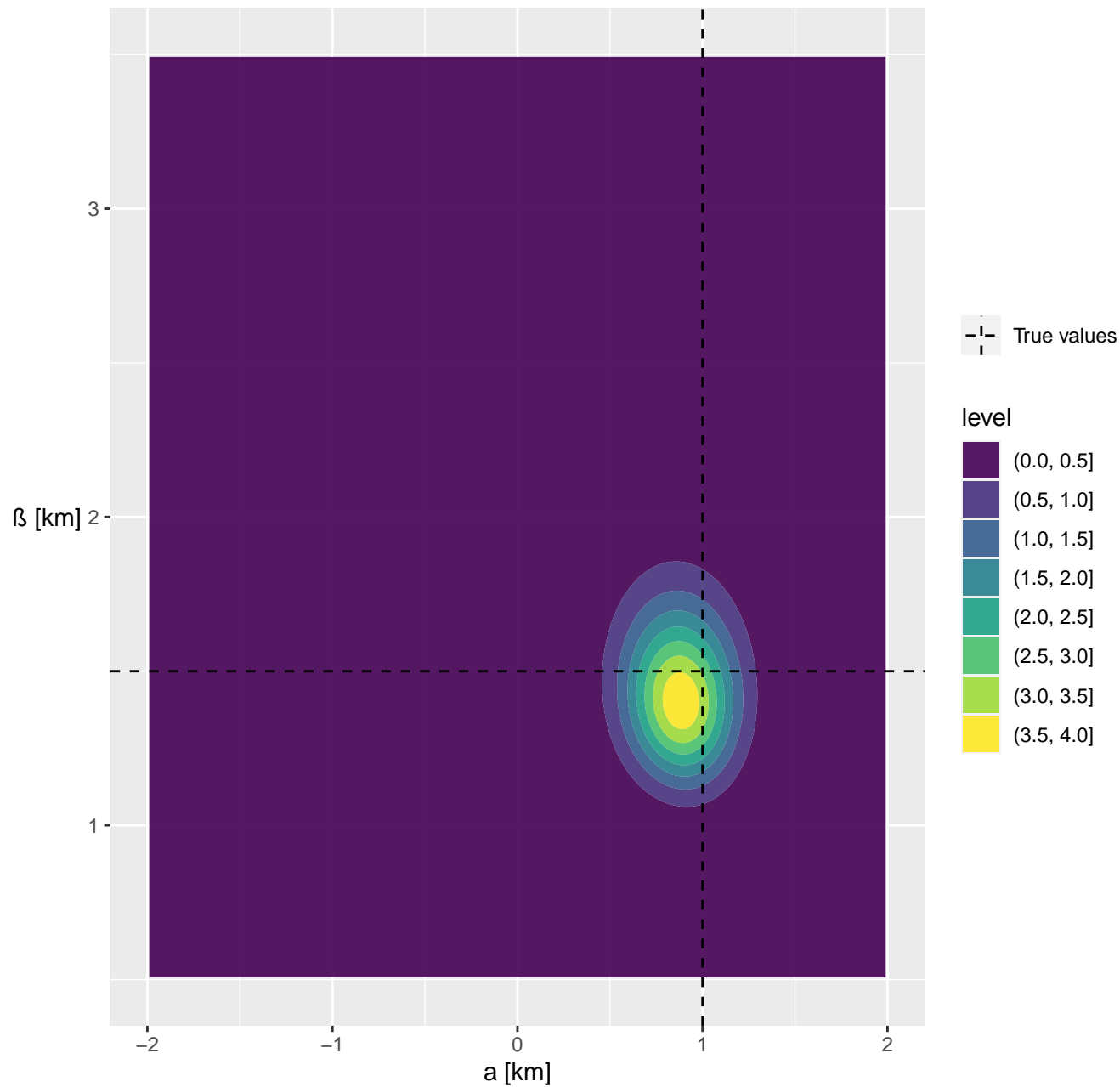
**A** Ex. 3 : Cross Section of Posterior Distribution for  $\beta = \beta_{\max}$



**B** Ex. 3 : Cross Section of Posterior Distribution for  $a = a_{\max}$



Ex. 3 : Posterior Distribution Contour Plot



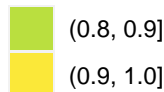
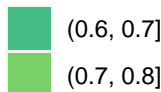
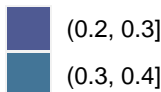


Ex. 4 : Posterior Distribution Contour Plot

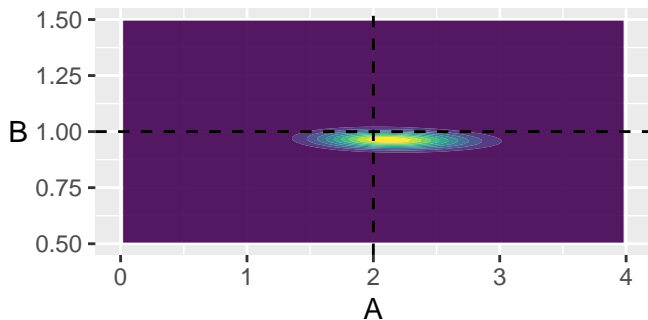


True values

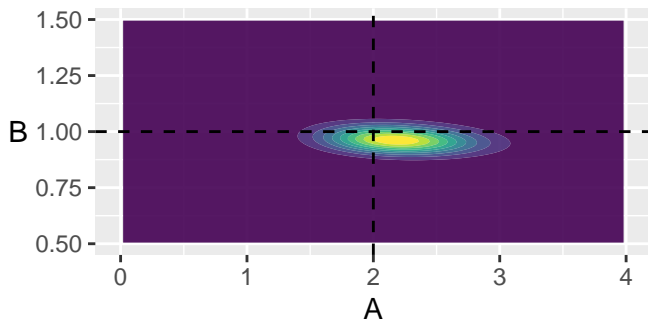
level



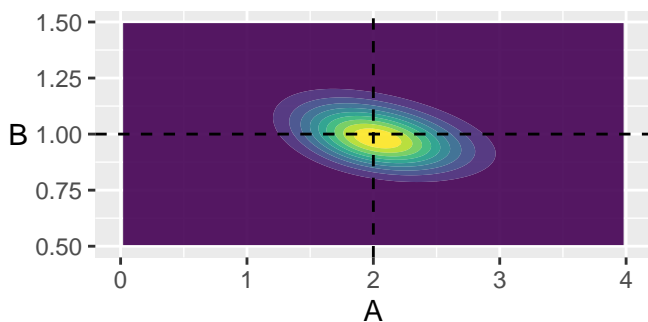
**w = 0.1**



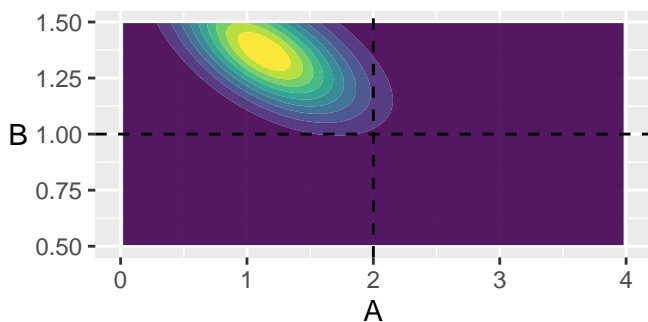
**w = 0.25**



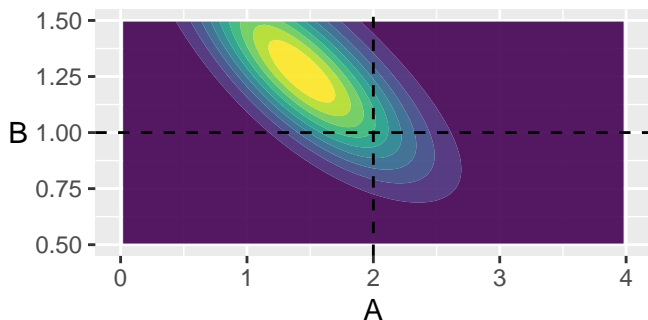
**w = 1**



**w = 2**



**w = 3**



# Ex. 4 : Posteriors varying Resolution w

**w = 0.1**



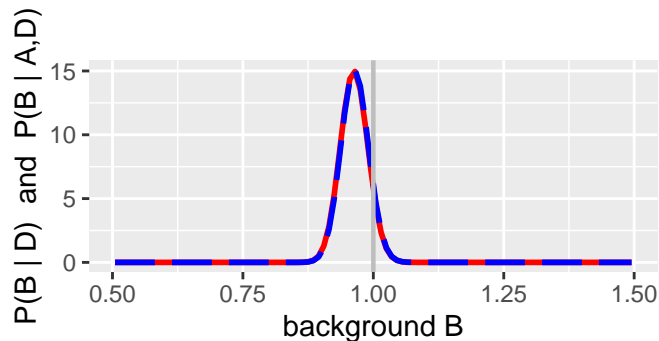
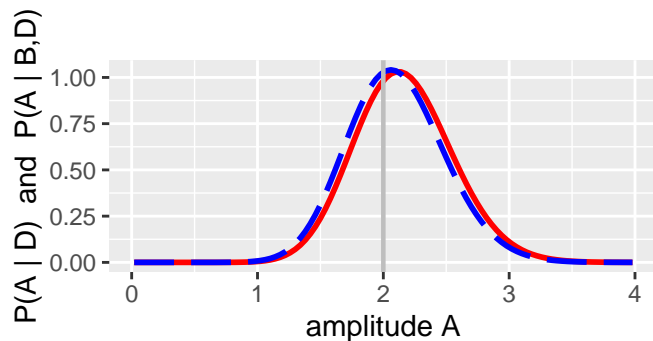
Conditional



Marginalised



True Value



**w = 0.25**



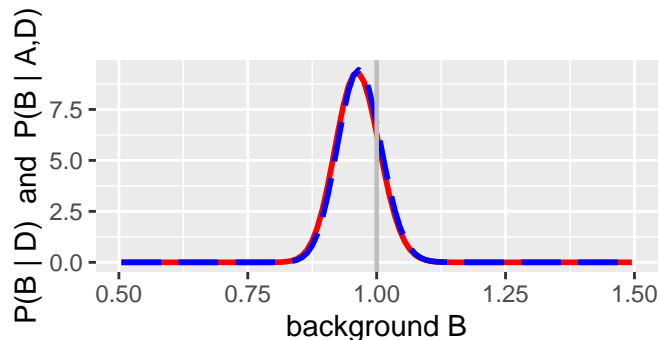
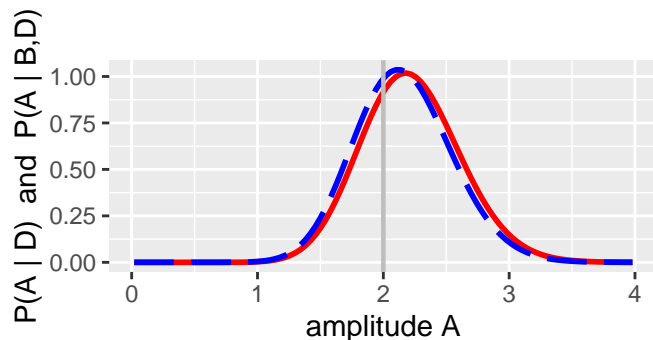
Conditional



Marginalised



True Value



**w = 1**



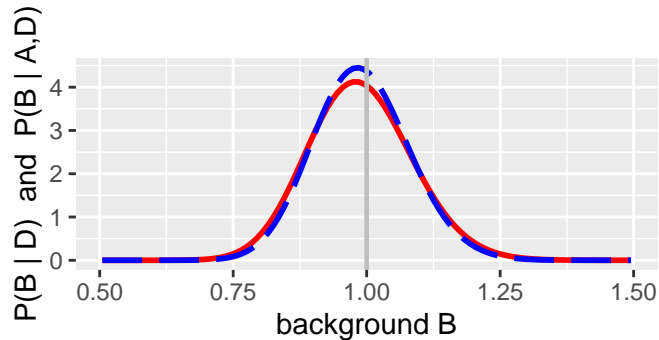
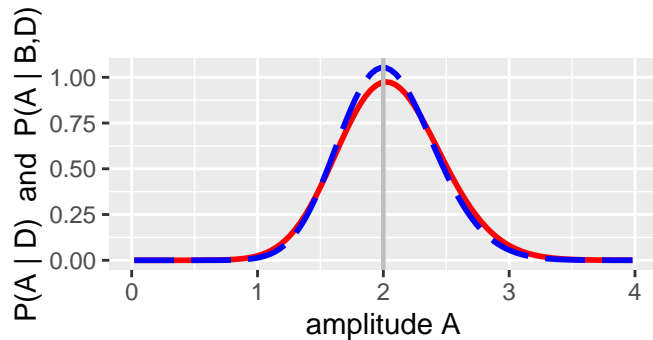
Conditional



Marginalised



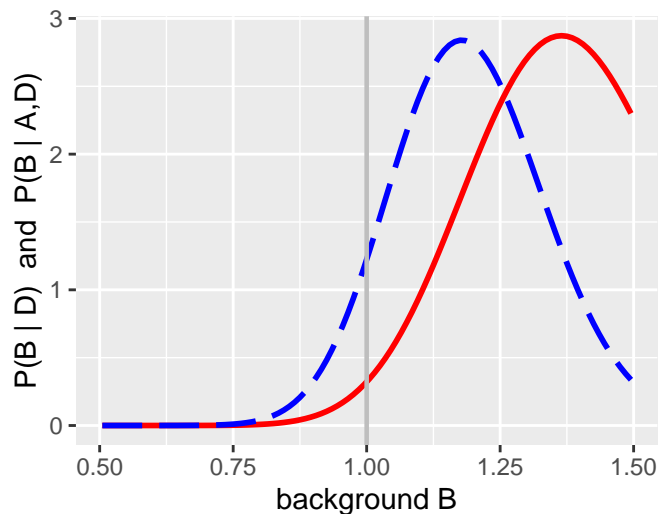
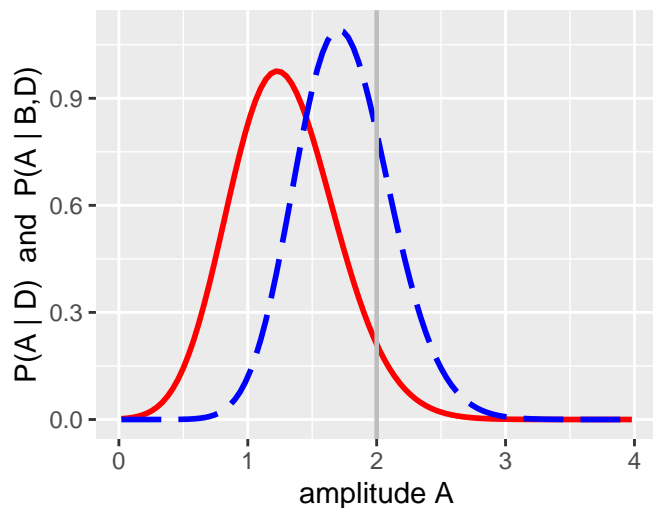
True Value



Ex. 4 : Posteriors varying Resolution w

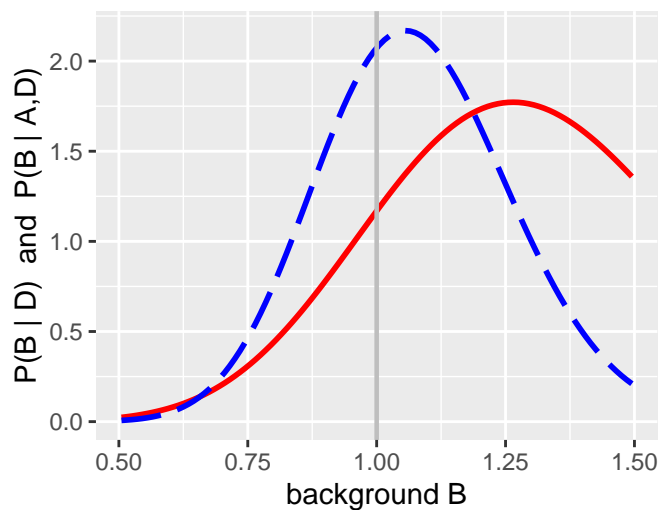
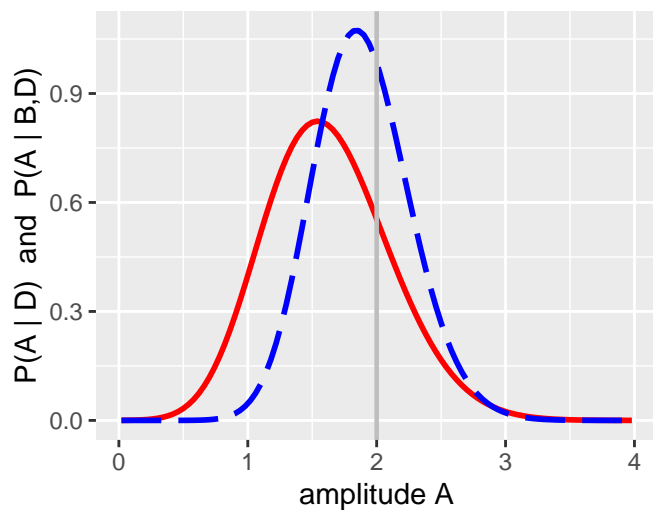
**w = 2**

+ Conditional 
 + Marginalised 
 + True Value



**w = 3**

+ Conditional 
 + Marginalised 
 + True Value



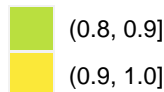
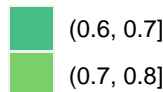
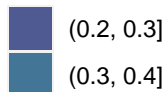
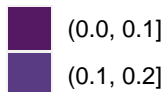
	w	Mean A	Std A	Mean B	Std B	Cov AB	Rho AB
1	0.1	2.163	0.964	0.389	0.027	−0.001	−0.112
2	0.25	2.219	0.964	0.393	0.043	−0.003	−0.175
3	1	2.061	0.989	0.411	0.097	−0.015	−0.376
4	2	1.284	1.299	0.41	0.13	−0.026	−0.481
5	3	1.626	1.174	0.484	0.205	−0.064	−0.646

Ex. 4 : Posterior Distribution Contour Plot

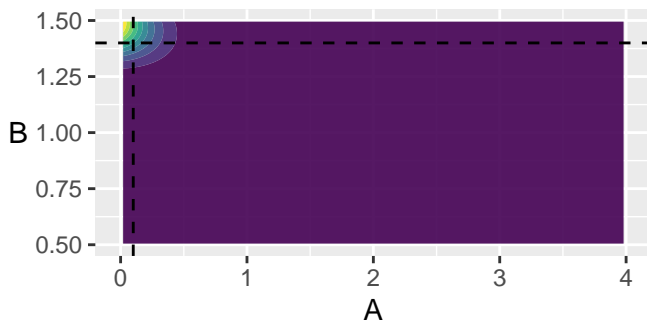


True values

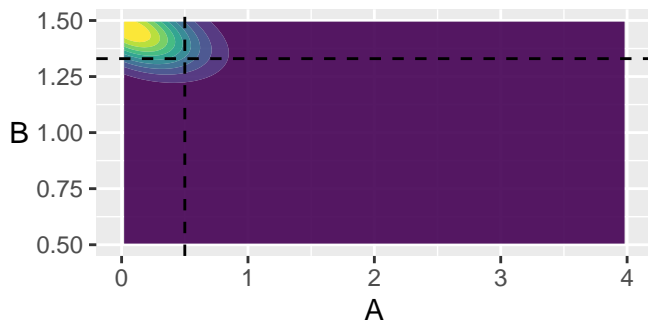
level



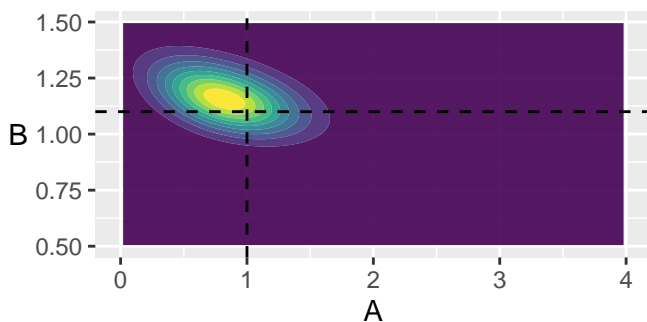
**R = 0.071**



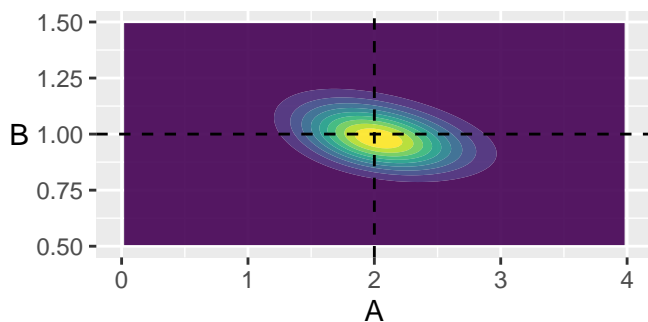
**R = 0.376**



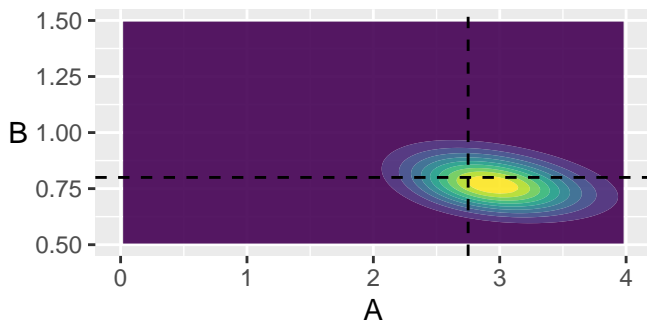
**R = 0.909**



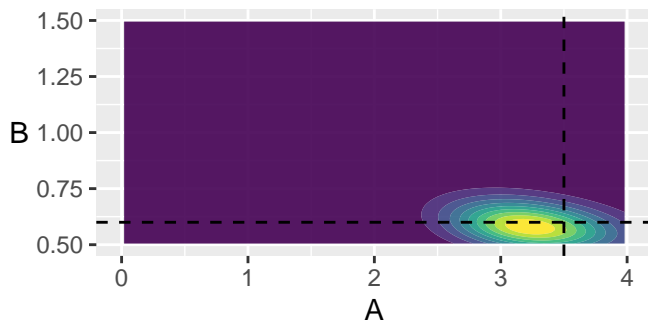
**R = 2**



**R = 3.438**



**R = 5.833**



# Ex. 4 : Posteriors varying A/B Ratio

**R = 0.071**



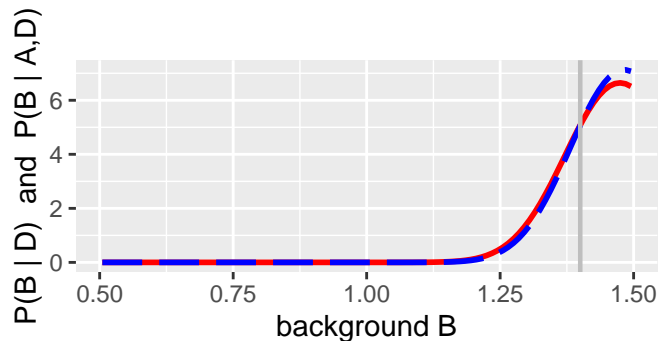
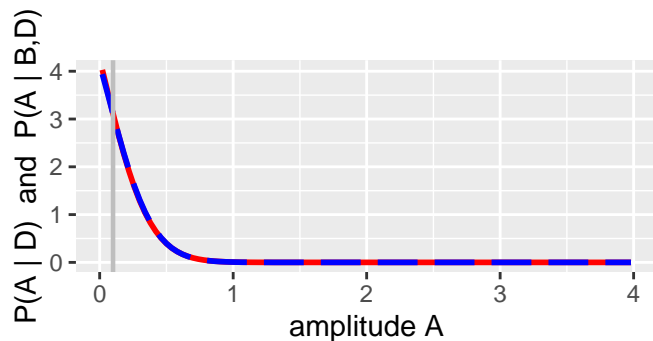
Conditional



Marginalised



True Value



**R = 0.376**



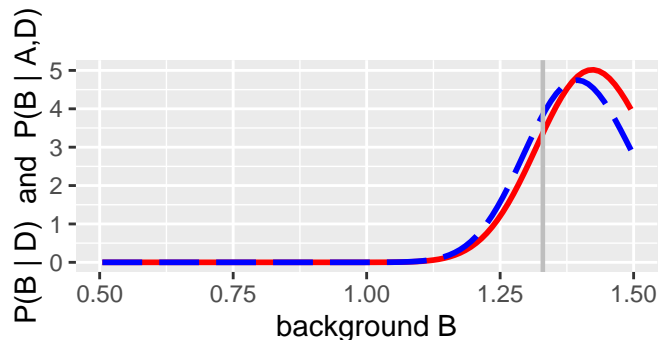
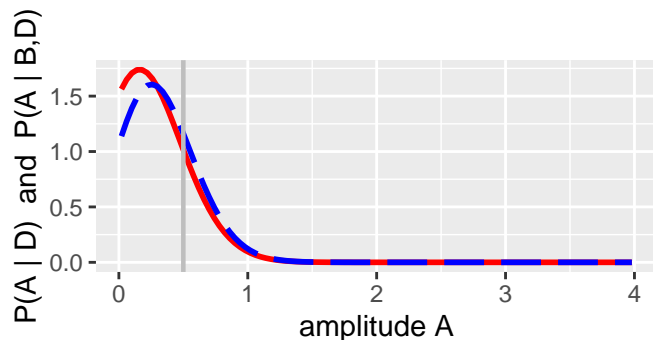
Conditional



Marginalised



True Value



**R = 0.909**



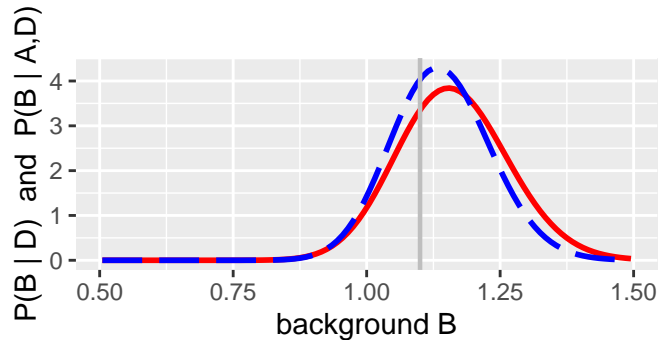
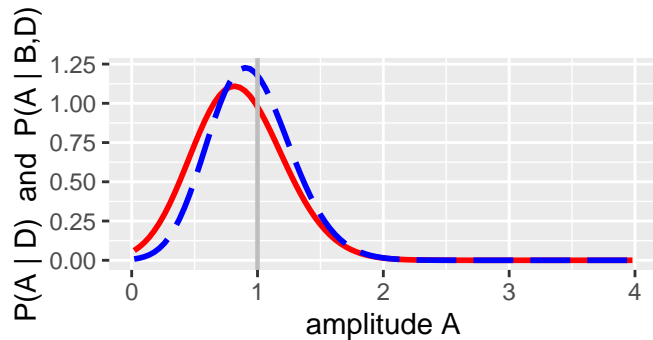
Conditional



Marginalised



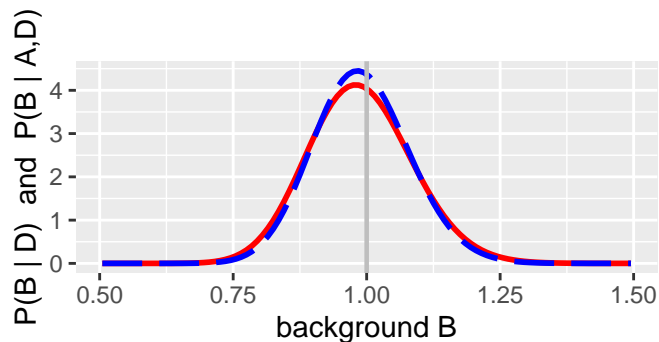
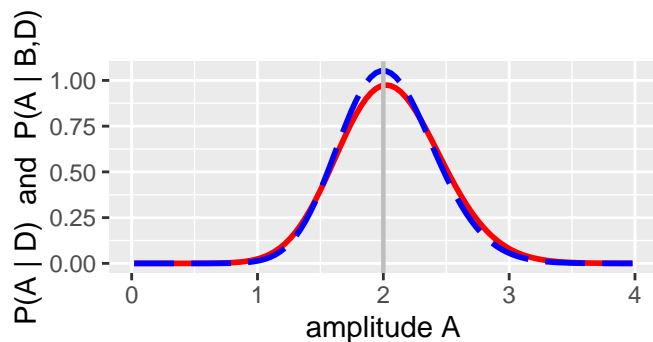
True Value



# Ex. 4 : Posteriors varying A/B Ratio

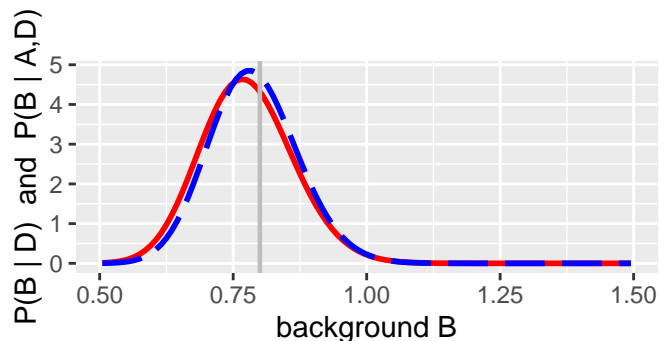
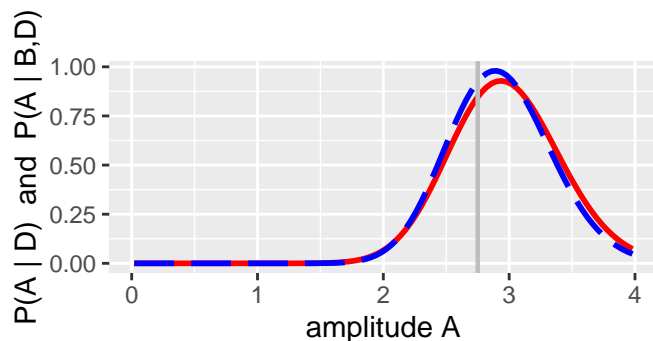
**R = 2**

+ Conditional 
 + Marginalised 
 + True Value



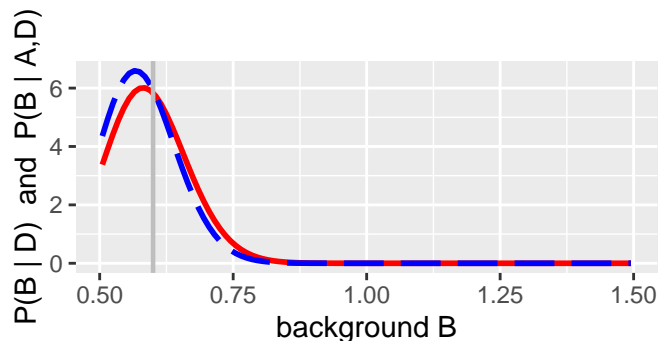
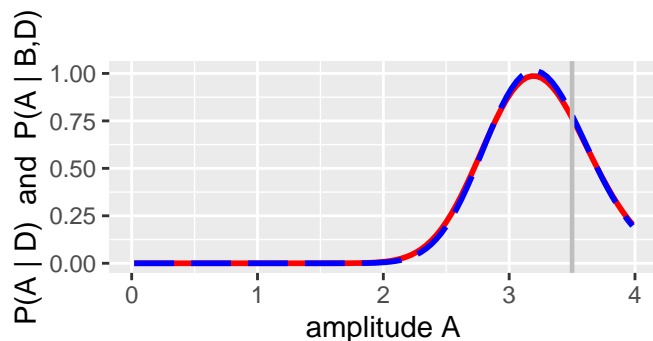
**R = 3.438**

+ Conditional 
 + Marginalised 
 + True Value



**R = 5.833**

+ Conditional 
 + Marginalised 
 + True Value



	Ratio	True A	Mean A	Std A	True B	Mean B	Std B	Cov AB	Rho AB
1	0.071	0.1	0.189	0.162	1.4	1.411	0.064	−0.001	−0.14
2	0.376	0.5	0.341	0.242	1.33	1.384	0.076	−0.005	−0.253
3	0.909	1	0.86	0.358	1.1	1.161	0.103	−0.016	−0.434
4	2	2	2.061	0.411	1	0.989	0.097	−0.015	−0.376
5	3.438	2.75	2.957	0.417	0.8	0.777	0.086	−0.012	−0.322
6	5.833	3.5	3.192	0.381	0.6	0.605	0.065	−0.006	−0.235