1 Week Course – Data Analytics and Geostatistics Workflows

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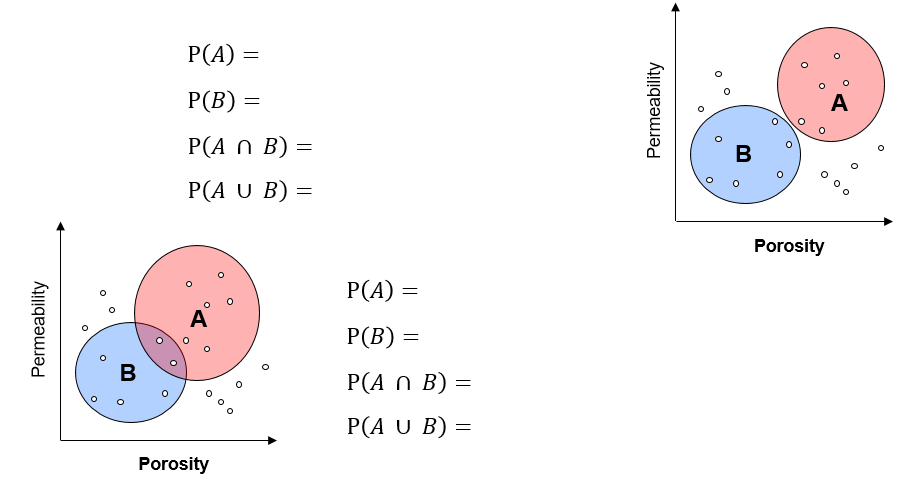
Paper-based Hand’s On Exercises

Simple paper-based hands-on exercises are useful to communicate geostatistical concepts. We will discuss and cover the solution set in class.

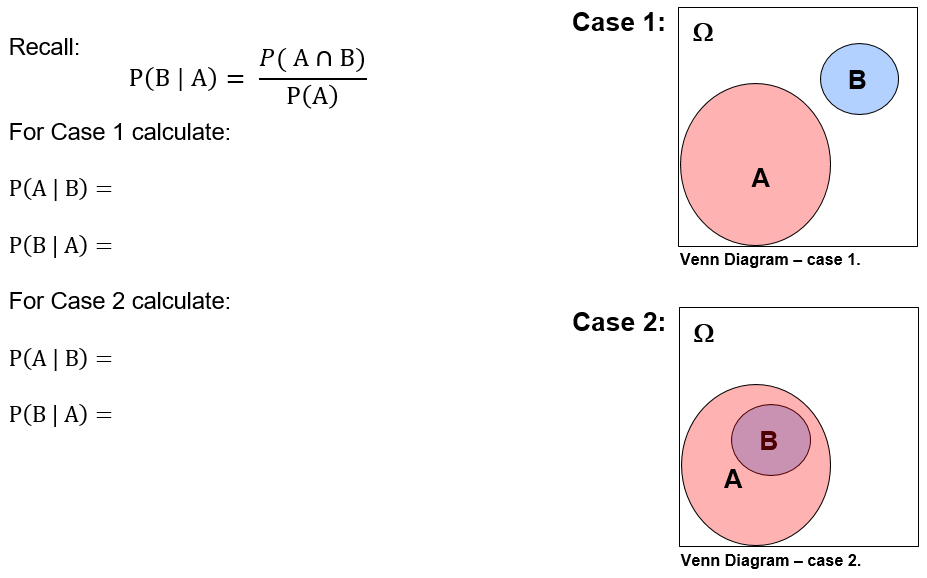
Unit 1 Probability Theory

**Calculate the following probabilities for event A and B:**

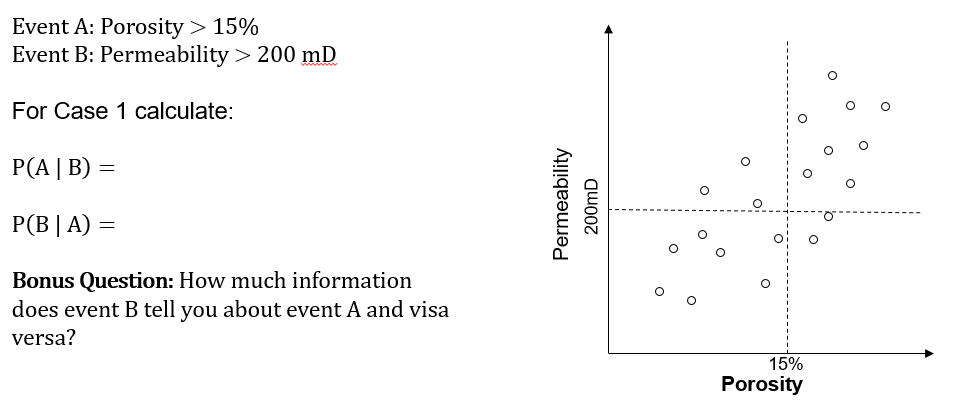
Note Event A: Sandstone and Event B: Shale



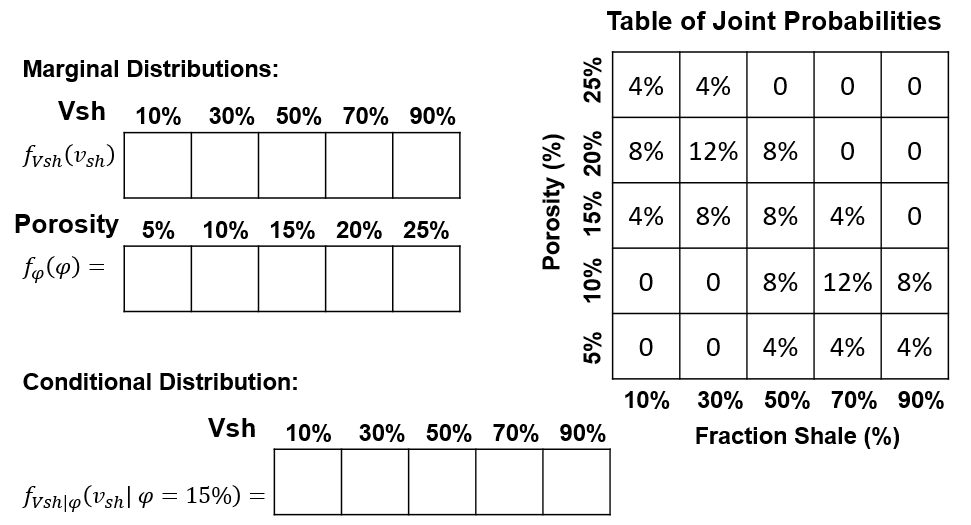
**Calculate the following conditional probabilities:**



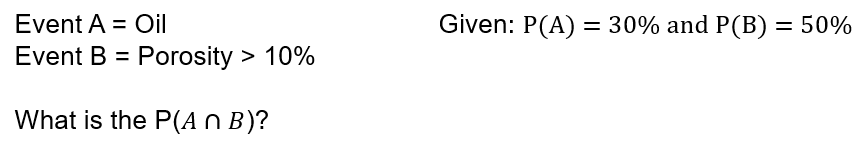
**Calculate the following probabilities for events A and B:**



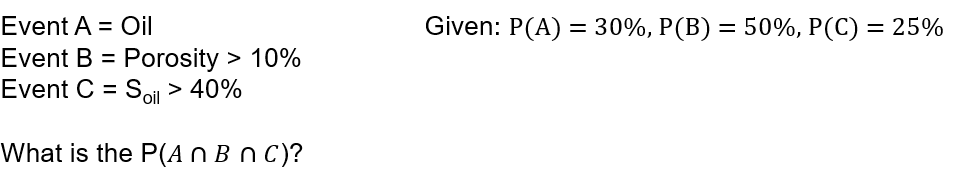
**Given these joint probabilities calculate the:**



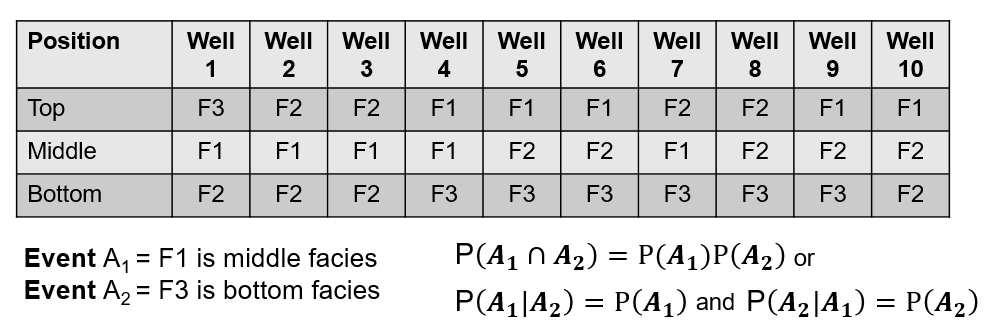
**Given there is independence between fluid type and porosity:**



**Given there is independence between fluid type, porosity and saturation:**

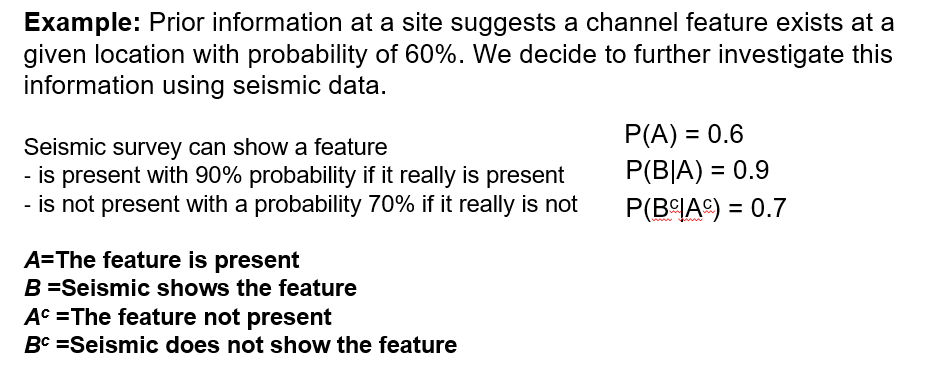


**Given facies F1, F2 and F3 in 10 wells:**



**Are events A1 and A2 independent?**

**Calculate the probability of a channel feature given it appears in seismic using Bayesian methods:**



**Will seismic information be useful?**