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Math 5710 Tuesday, 7/07/20 Quiz 11

1. What is your name?

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2. Although we didn't have the benefit of Theorem 05 available to us when we worked with Torialba problem during Meeting 11, write a paragraph that explains why the following upcoming theorem is relevant to problems similar to Torialba's:

Theorem 05: Independent experiments #1 and #2 with respective finite sample spaces Ω_1 and Ω_2 are conducted $\rightarrow |\Omega_1 \cap \Omega_2| = |\Omega_1| \cdot |\Omega_2|$

$\Omega_1 = 8, \Omega_2 = 36$

$X_2 = 3, X =$

$\Omega_3 = |\Omega_1 \times \Omega_2|$

$\frac{6}{36} \quad \frac{3}{8}$

In the problem in class, we needed to compute $|\Omega_1 \cap \Omega_2|$ and we would need to write out $|\Omega_1 \times \Omega_2|$. It would have been nice to have the Theorem to help us out, Because then we would use that Result of $|\Omega_1 \times \Omega_2|$ to find the probability $P(A \cap B)$.

3. Smile.