DD MM AA

(3.) a.) $P(\phi) = \frac{|\phi|}{|\Omega|}$, $|\phi| = 0$

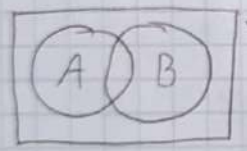
$P(\phi) = \frac{0}{|\Omega|} = 0$ //

b.) $P(A^c) = \frac{|A^c|}{|\Omega|}$, $|A^c| = |\Omega| - |A|$.

$P(A^c) = \frac{|\Omega| - |A|}{|\Omega|} = 1 - \frac{|A|}{|\Omega|}$, $A - P(A) = \frac{|A|}{|\Omega|}$

$P(A^c) = 1 - P(A)$ //

f.)



$P(A \cup B) = \frac{|A \cup B|}{|\Omega|} = \frac{|A| + |B| - |A \cap B|}{|\Omega|} = \frac{|A|}{|\Omega|} + \frac{|B|}{|\Omega|} - \frac{|A \cap B|}{|\Omega|}$

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$ //