assn2.1

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October 2019

1. $P(Dog) = \frac{1}{2}$, $P(Cat) = \frac{1}{2}$

   (a) $P(Dog|Dog) = \frac{P(Dog \wedge Dog)}{P(Dog)} = \frac{\frac{1}{4}}{\frac{1}{2}} = \frac{1}{2}$

   (b) $P(\text{At least one Dog}|\text{Dog}) = P(1 - P(\text{No Dogs})|\text{Dog}) = \frac{\frac{1}{4}}{\frac{3}{4}} = \frac{1}{3}$