# 3342 Review: Chapters 1-3 

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$$
\mathrm{P}(\mathrm{~A} \cup \mathrm{~B})=\mathrm{P}(\mathrm{~A})+\mathrm{P}(\mathrm{~B})-\mathrm{P}(\mathrm{~A} \cap \mathrm{~B})
$$

complement rule for probability

$$
\mathrm{P}(\overline{\mathrm{~A}})=1-\mathrm{P}(\mathrm{~A})
$$

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$$
\mathrm{P}(\mathrm{~A} \mid \mathrm{B})=\frac{\mathrm{P}(\mathrm{~A} \cap \mathrm{~B})}{\mathrm{P}(\mathrm{~B})}
$$

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