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CS245 Homework 7

CS245 HW 7

10. ${}^{52}C_5 = \frac{52!}{5!(52-5)!} = 2598960$ total outcomes

${}^{50}C_3 = \frac{50!}{3!(50-3)!} = 19600$ wanted outcomes

$\frac{19600}{2598960} = \boxed{.0075} \Rightarrow .75\% \text{ chance}$

18. $\left(\frac{1}{25}\right) \cdot \left(\frac{1}{70}\right) \left(\frac{1}{49}\right) \left(\frac{1}{63}\right) \left(\frac{1}{67}\right) \left(\frac{1}{66}\right)$

$\boxed{= 2.75 \times 10^{-11}}$

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