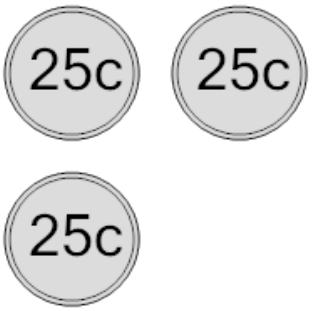
Name

# Probability Union, Intersection, Complement - Coins Example Problem to Formula

**1** What formula would give you the chance of flipping at least one tails in 3 tries?

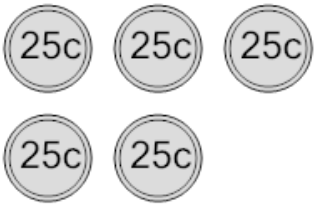



A $\frac{P(\text{All Heads} \cap \text{All Heads})}{P(\text{All Heads})}$

B $1 - P(\text{All Heads})$

C $P(\text{All Heads}) + P(\text{All Heads}) - P(\text{All Heads} \cap \text{All Heads})$

**2** What formula would give you the chance of getting exactly 4 heads when flipping 5 coins, given that the first flip was heads?

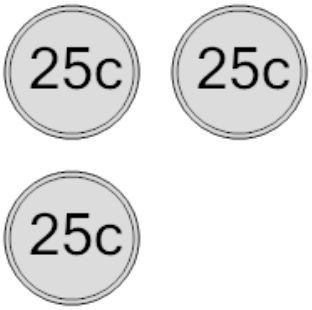



A $\frac{P(4 \text{ heads} \cap \text{first is heads})}{P(\text{first is heads})}$

B $P(4 \text{ heads}) + P(\text{first is heads}) - P(4 \text{ heads} \cap \text{first is heads})$

C $1 - P(4 \text{ heads})$

**3** What formula would give you the chance of flipping at least one heads in 3 tries?




A $1 - P(\text{All Tails})$

B $P(\text{All Tails}) + P(\text{All Tails}) - P(\text{All Tails} \cap \text{All Tails})$

C $\frac{P(\text{All Tails} \cap \text{All Tails})}{P(\text{All Tails})}$

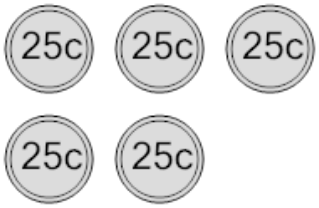
**4** What formula would give you the chance of flipping at least one heads in 2 tries?


A $1 - P(\text{All Tails})$

B $P(\text{All Tails}) + P(\text{All Tails}) - P(\text{All Tails} \cap \text{All Tails})$

C $P(\text{All Tails}) \cdot P(\text{All Tails})$

**5** What formula would give you the chance of flipping at least one heads in 5 tries?

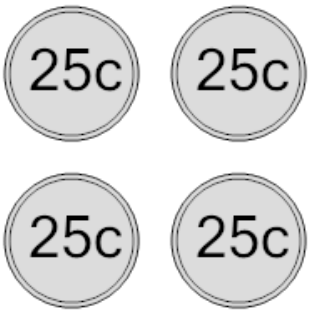



A $\frac{P(\text{All Tails} \cap \text{All Tails})}{P(\text{All Tails})}$

B $P(\text{All Tails}) \cdot P(\text{All Tails})$

C $1 - P(\text{All Tails})$

**6** What formula would give you the chance of getting exactly 2 tails when flipping 4 coins, given that the first flip was tails?




A $P(2 \text{ tails}) \cdot P(\text{first is tails})$

B $\frac{P(2 \text{ tails} \cap \text{first is tails})}{P(\text{first is tails})}$

C $P(2 \text{ tails}) + P(\text{first is tails}) - P(2 \text{ tails} \cap \text{first is tails})$

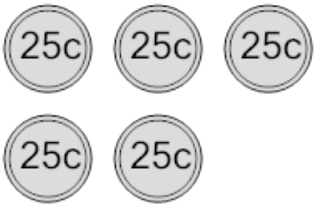
**7** What formula would give you the chance of flipping heads at least once given two tries?


A $P(H_1) + P(H_2) - P(H_1 \cap H_2)$

B $P(H_1) \cdot P(H_2)$

C $1 - P(H_1)$

**8** What formula would give you the chance of getting exactly 3 heads when flipping 5 coins, given that the first flip was heads?




A $\frac{P(3 \text{ heads} \cap \text{first is heads})}{P(\text{first is heads})}$

B $\frac{P(\text{first is heads} \cap 3 \text{ heads})}{P(3 \text{ heads})}$

C $P(3 \text{ heads}) \cdot P(\text{first is heads})$