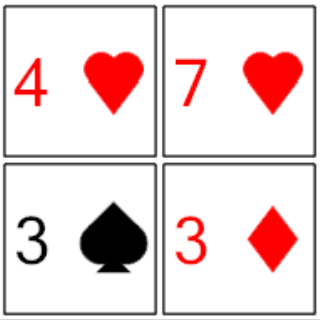
Name

Probability Union, Intersection, Complement - Cards Example Problem to Formula

1 What formula would give you the chance of not drawing a card that is under 8?

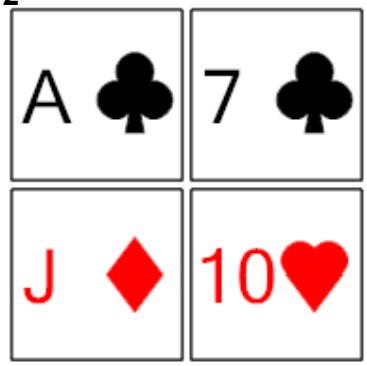


A $1 - P(\text{under } 8)$

B $P(\text{under } 8) + P(\text{under } 8) - P(\text{under } 8 \cap \text{under } 8)$

C $\dfrac{P(\text{under } 8 \cap \text{under } 8)}{P(\text{under } 8)}$

2



What formula would give you the chance of not drawing a card that is over 6?

A $1 - P(\text{over } 6)$

B $\dfrac{P(\text{over } 6 \cap \text{over } 6)}{P(\text{over } 6)}$

3 What formula would give you the chance of drawing a card that is a diamond or over 4?

A $1 - P(\text{diamonds})$

B $P(\text{diamonds}) + P(\text{over } 4) - P(\text{diamonds} \cap \text{over } 4)$

C $\dfrac{P(\text{diamonds} \cap \text{over } 4)}{P(\text{over } 4)}$

4 What formula would give you the chance of drawing a card that is both red and over 4?

A $P(\text{red}) + P(\text{over } 4) - P(\text{red} \cap \text{over } 4)$

B $P(\text{red}) \cdot P(\text{over } 4)$

C $\dfrac{P(\text{red} \cap \text{over } 4)}{P(\text{over } 4)}$

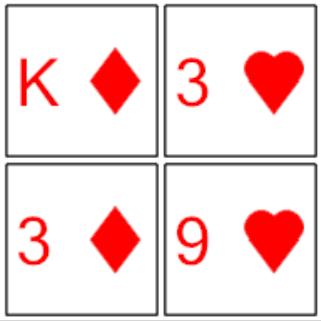
5 What formula would give you the chance of not drawing a card that is under 10?

A $\dfrac{P(\text{under } 10 \cap \text{under } 10)}{P(\text{under } 10)}$

B $P(\text{under } 10) + P(\text{under } 10) - P(\text{under } 10 \cap \text{under } 10)$

C $1 - P(\text{under } 10)$

6 What formula would give you the chance of not drawing a card that is red?

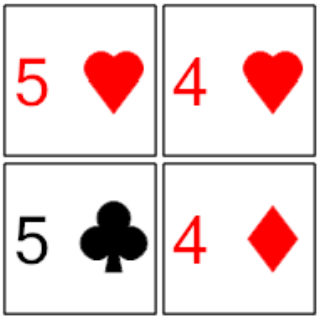


A $1 - P(\text{red})$

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

C $P(\text{red}) \cdot P(\text{red})$

7 What formula would give you the chance of drawing a card that is a diamond or under 8?

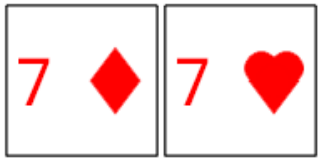


A $1 - P(\text{diamonds})$

B $P(\text{diamonds}) + P(\text{under } 8) - P(\text{diamonds} \cap \text{under } 8)$

C $\dfrac{P(\text{diamonds} \cap \text{under } 8)}{P(\text{under } 8)}$

8 What formula would give you the chance of drawing a card that is both a 7 and red?



A $\dfrac{P(7 \cap \text{red})}{P(\text{red})}$

B $P(7) \cdot P(\text{red})$

C $1 - P(7)$