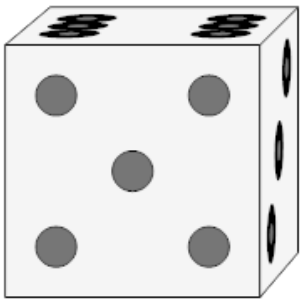
Name

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

1 What formula would give you the chance of not rolling a 5?

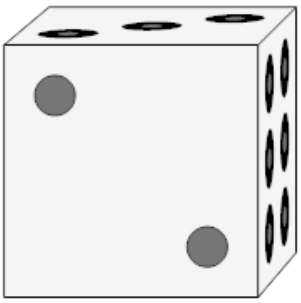


A $P(5) \cdot P(5)$

B $P(5) + P(5) - P(5 \cap 5)$

C $1 - P(5)$

2 What formula would give you the chance of not rolling a 2?

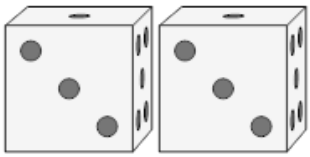


A $1 - P(2)$

B $\dfrac{P(2 \cap 2)}{P(2)}$

C $P(2) \cdot P(2)$

3 What formula would give you the chance of both dice being a 3, given that at least one die is a 3?

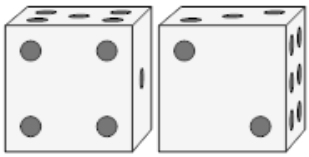


A $\dfrac{P(\text{two 3s} \cap \text{at least one 3})}{P(\text{at least one 3})}$

B $1 - P(\text{two 3s})$

C $P(\text{two 3s}) + P(\text{at least one 3}) - P(\text{two 3s} \cap \text{at least one 3})$

4 What formula would give you the chance of one die showing a 2, given that the sum is 6?

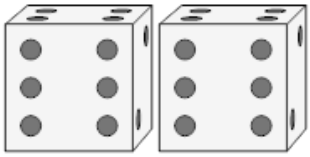


A $P(\text{a 2}) \cdot P(\text{sum 6})$

B $\dfrac{P(\text{sum 6} \cap \text{a 2})}{P(\text{a 2})}$

C $\dfrac{P(\text{a 2} \cap \text{sum 6})}{P(\text{sum 6})}$

5 What formula would give you the chance of rolling a 6 twice in a row?

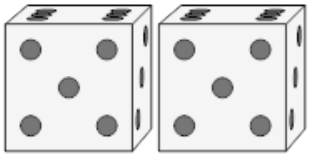


A $\dfrac{P(6_1 \cap 6_2)}{P(6_2)}$

B $1 - P(6_1)$

C $P(6_1) \cdot P(6_2)$

6 What formula would give you the chance of rolling a 5 at least once given two tries?

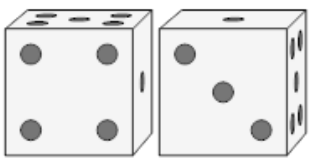


A $P(5_1) + P(5_2) - P(5_1 \cap 5_2)$

B $\dfrac{P(5_1 \cap 5_2)}{P(5_2)}$

C $P(5_1) \cdot P(5_2)$

7 What formula would give you the chance of one die showing a 4, given that the sum is 7?

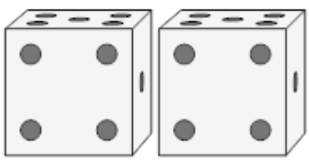


A $P(\text{a 4}) + P(\text{sum 7}) - P(\text{a 4} \cap \text{sum 7})$

B $P(\text{a 4}) \cdot P(\text{sum 7})$

C $\dfrac{P(\text{a 4} \cap \text{sum 7})}{P(\text{sum 7})}$

8 What formula would give you the chance of rolling a 4 twice in a row?



A $P(4_1) \cdot P(4_2)$

B $1 - P(4_1)$

C $P(4_1) + P(4_2) - P(4_1 \cap 4_2)$