



Probability Union, Intersection, Complement - Letter Tiles Example

Problem to Formula

1 What formula would give you the chance of the selected letter being 'H', if you know that the selected letter is before 'R' in the alphabet?

H	

A $P('H') + P(\text{before 'R'}) - P('H' \cap \text{before 'R'})$

B $\frac{P(\text{before 'R'} \cap 'H')}{P('H')}$

C $\frac{P('H' \cap \text{before 'R'})}{P(\text{before 'R'})}$

2 What formula would give you the chance of not drawing an 'Y'?

Y	

A $1 - P(Y)$

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

C $P(Y) \cdot P(Y)$

3 What formula would give you the chance of drawing an 'C' twice in a row?

C	

A $P(C_1) \cdot P(C_2)$

B $P(C_1) + P(C_2) - P(C_1 \cap C_2)$

C $1 - P(C_1)$

4 What formula would give you the chance of drawing an 'P' twice in a row?

P	

A $P(P_1) \cdot P(P_2)$

B $P(P_1) + P(P_2) - P(P_1 \cap P_2)$

C $1 - P(P_1)$

5 What formula would give you the chance of not drawing an 'M'?

M	

A $\frac{P(M \cap M)}{P(M)}$

B $1 - P(M)$

C $P(M) + P(M) - P(M \cap M)$

6 What formula would give you the chance of not drawing an 'T'?

T	

A $1 - P(T)$

B $P(T) \cdot P(T)$

C $P(T) + P(T) - P(T \cap T)$

7 What formula would give you the chance of drawing an 'V' at least once given two tries?

V	

A $P(V_1) + P(V_2) - P(V_1 \cap V_2)$

B $1 - P(V_1)$

C $P(V_1) \cdot P(V_2)$

8 What formula would give you the chance of drawing an 'L' twice in a row?

L	

A $\frac{P(L_1 \cap L_2)}{P(L_2)}$

B $1 - P(L_1)$

C $P(L_1) \cdot P(L_2)$