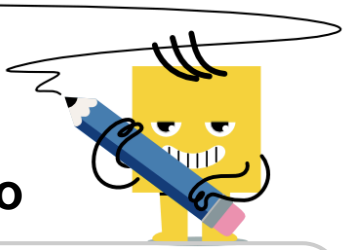
Name

Probability Union, Intersection, Complement - Word Problem Counts to Formula



1

In a group of customers, 7 did both, 15 are in the bought group but not the coupon group, 27 are in the coupon group but not the bought group, and 1 are in neither group.

Let A be the bought group and B be the coupon group. Which expression gives the number of customers who are in at least one of the two groups?

A $n(A) + n(B) - n(A \cap B)$

B $n(A) \cdot n(B)$

C $n(A) + n(B) + n(A \cap B)$

D $n(A) + n(B)$

2

In a group of 25 employees, 18 are in the full-time group but not the 10+ yrs group, 2 are in the 10+ yrs group but not the full-time group, and 2 are in neither group.

Let A be the full-time group and B be the 10+ yrs group. Which expression gives the number of employees who are in at least one of the two groups?

A $n(A) + n(B)$

B $n(A) + n(B) - n(A \cap B)$

C $n(A) + n(B) + n(A \cap B)$

D $n(A) \cdot n(B)$

3

In a group of 25 students, 6 take both, 16 are in the art group but not the comp sci group, and 1 are in the comp sci group but not the art group.

Let A be the art group and B be the comp sci group. Which expression gives the number of students who are in neither group?

A $N - n(A) - n(B)$

B $N - n(A) - n(B) - n(A \cap B)$

C $n(A) + n(B) - n(A \cap B)$

D $N - n(A) - n(B) + n(A \cap B)$

4

In a group of 100 employees, 11 have both, 30 are in the trained group but not the certified group, and 4 are in the certified group but not the trained group.

Let A be the trained group and B be the certified group. Which expression gives the number of employees who are in neither group?

A $n(A) + n(B) - n(A \cap B)$

B $N - n(A) - n(B) - n(A \cap B)$

C $N - n(A) - n(B) + n(A \cap B)$

D $N - n(A) - n(B)$

5

In a group of 20 gym members, 18 take yoga, 5 take both, and 1 are in the spin group but not the yoga group.

Let A be the yoga group and B be the spin group. Which expression gives the number of gym members who are in neither group?

A $n(A) + n(B) - n(A \cap B)$

B $N - n(A) - n(B) - n(A \cap B)$

C $N - n(A) - n(B)$

D $N - n(A) - n(B) + n(A \cap B)$

6

In a group of 20 students, 6 run track, 14 swim, and 5 are in neither group.

Let A be the track group and B be the swimming group. Which expression gives the number of students who are in at least one of the two groups?

A $n(A) + n(B) - n(A \cap B)$

B $n(A) \cdot n(B)$

C $n(A) + n(B)$

D $n(A) + n(B) + n(A \cap B)$

7

In a group of 100 students, 38 are in band, 51 are in drama, and 34 are in neither group.

Let A be the band group and B be the drama group. Which expression gives the number of students who are in at least one of the two groups?

A $n(A) + n(B) + n(A \cap B)$

B $n(A) \cdot n(B)$

C $n(A) + n(B)$

D $n(A) + n(B) - n(A \cap B)$

8

In a group of 100 customers, 3 are in the member group but not the app group, 75 are in the app group but not the member group, and 1 are in neither group.

Let A be the member group and B be the app group. Which expression gives the number of customers who are in at least one of the two groups?

A $n(A) + n(B)$

B $n(A) + n(B) - n(A \cap B)$

C $n(A) \cdot n(B)$

D $n(A) + n(B) + n(A \cap B)$