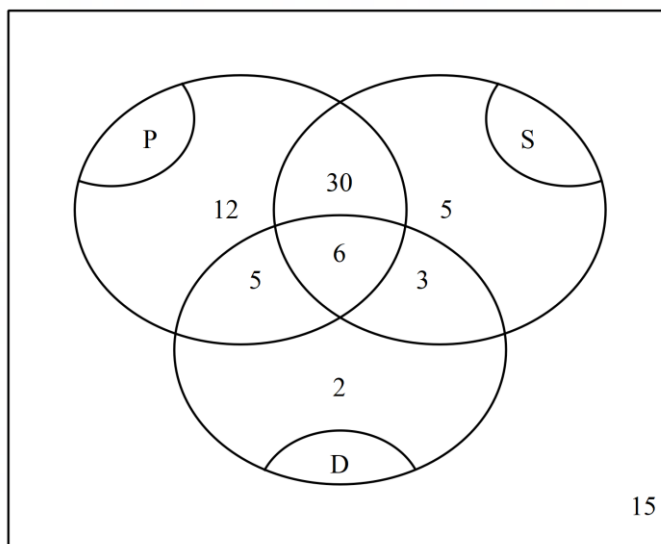


Probabilities with Venn Diagrams

The following Venn Diagram represents what customers ordered at a restaurant one night where D = dessert, S = salad, P = pasta



1. How many customers were at the restaurant?
2. What is the probability that a customer, selected at random, ordered pasta?
3. What is the probability that a customer, selected at random, ordered pasta and salad?
4. What is the probability that a customer, selected at random, ordered pasta or salad?
5. What is the probability that a customer, selected at random, ordered dessert and salad?
6. What is the probability that a customer, selected at random, ordered pasta and salad and dessert?
7. What is the probability that a customer, selected at random, ordered pasta or salad or dessert?
8. What is the probability that a customer, selected at random, did not order pasta or salad or dessert?
9. What is the probability that a customer, selected at random, did not order pasta and salad and dessert?

ANSWERS

1. 78

2. $53/78$

3. $36/78 = 6/13$

4. $61/78$

5. $9/78 = 3/26$

6. $6/78 = 1/13$

7. $63/78 = 21/26$

8. $15/78 = 5/26$

9. $62/78 = 31/39$