

Name _____



Venn Diagram Word Problems

1. In a city with 800 residents, 450 subscribe to a streaming service, 350 subscribe to a music service, and 250 subscribe to both. If 150 residents don't subscribe to either service, how many subscribe only to a streaming service?
2. At a cafe, there are 600 customers. 350 prefer black coffee, 300 prefer lattes, and 200 prefer both. If 100 customers prefer neither, how many prefer only lattes?
3. In a survey of 400 people, 200 prefer dogs as pets, 150 prefer cats, and 100 prefer both. If 50 people prefer neither, how many prefer only cats?
4. Among 1000 students in a school, 600 participate in sports, 500 participate in arts, and 400 participate in both. If 200 students don't participate in either, how many participate only in arts?
5. In a tech company, there are 700 employees. 400 use Mac computers, 300 use Windows computers, and 200 use both. If 100 employees use neither, how many use only Mac computers?
6. At a music festival, there are 800 attendees. 450 like rock music, 350 like jazz music, and 250 like both. If 150 attendees don't like either, how many like only jazz music?
7. In a library, there are 900 books. 500 are fiction, 400 are non-fiction, and 300 are poetry. If 200 books are both fiction and non-fiction, 150 are both non-fiction and poetry, and 100 are both fiction and poetry, how many are only non-fiction?
8. Among 1200 participants in a conference, 700 are males, 600 are females, and 500 are both. If 300 participants are neither male nor female, how many are only females?
9. In a zoo, there are 300 mammals, 200 birds, and 100 reptiles. If 50 animals are both mammals and birds, 40 are both birds and reptiles, and 30 are both mammals and reptiles, how many animals are only reptiles?
10. At a restaurant, there are 400 dishes on the menu. 200 are vegetarian, 150 are seafood-based, and 100 are both. If 50 dishes are neither vegetarian nor seafood-based, how many are only seafood-based?