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Chapter 8: Venn Diagrams

Daily practice problems: 10 questions with an answer key

Try every question on your own first. The answer key is on the last page.

1. Which diagram shows Rose, Flower and Plant?
2. Which diagram shows Pen, Pencil and Stationery?
3. In a class of 50, 30 play cricket and 25 play football. 10 play both. How many play neither?
4. Of 60 students, 35 like maths, 28 like science and 13 like both. How many like only maths?
5. $n(A) = 45$, $n(B) = 30$ and $n(A \cap B) = 12$. Find $n(A \cup B)$.
6. Of 70 people who drink tea or coffee (everyone drinks at least one), 40 drink tea and 45 drink coffee. How many drink both?
7. All squares are rectangles. All rectangles are quadrilaterals. How are the three circles drawn?
8. All A are B. All B are C. Does it follow that all A are C?
9. In a Venn diagram of two circles, the left-only region has 14 members, the overlap has 6, the right-only region has 9, and 3 members are outside both circles. How many members are there in all?
10. Of 100 people, 60 read paper A, 50 read paper B and 20 read both. How many read exactly one paper?

Answer Key

1. Three circles, each inside the next (every rose is a flower, every flower is a plant).
2. Two separate small circles inside a larger circle.
3. 5 ($30 + 25 - 10 = 45$ play at least one, and $50 - 45 = 5$).
4. 22.
5. 63.
6. 15 ($40 + 45 - 70$).
7. The circle of squares is inside the circle of rectangles, which is inside the circle of quadrilaterals.
8. Yes.
9. 32.
10. 70.

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