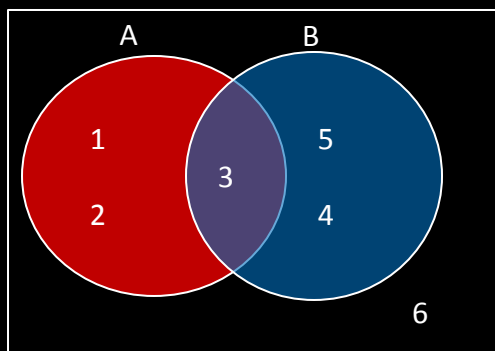


These Slides Accompany the YouTube Video Tutorial:
<https://www.youtube.com/watch?v=TVtQcTjf8ac>

Venn Diagram

Terminology

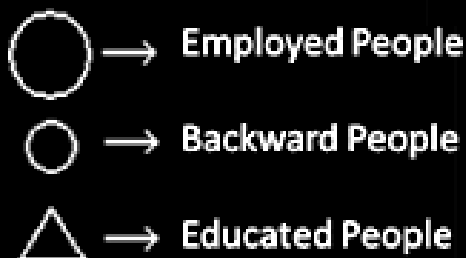
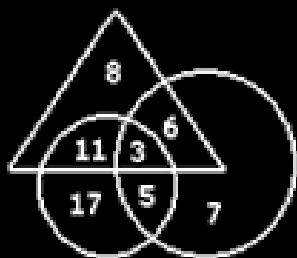
- Sample/Universe
- Subset $A \subseteq B$
- Element $o \in A$
- Union $A \cup B$
- Intersection $A \cap B$
- Complement \bar{B}



- Finding $A, B, \bar{B}, \bar{A}, A \cap B$ and $A \cup B$

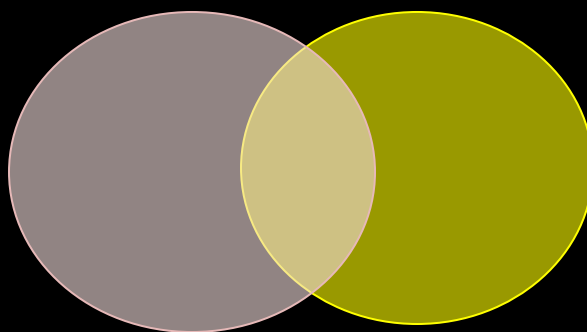
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Problems on Visualization



Keywords to Look for!

- Only Regions
- Both Region



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2 Circle Venn Diagram - Visualization

There are 200 students in all. 140 opt for Math, 100 opt for Biology and all of them have atleast opted for one of the subjects.

1. How many of them opted for both the subjects?

a. 60 b. 80 c. 40 d. Can't Say

2. How many of them opted for Math only?

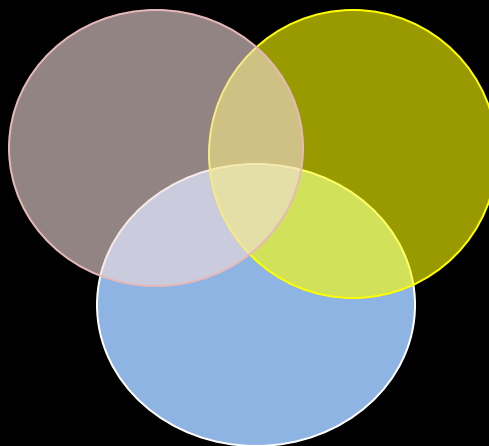
a. 100 b. 60 c. 40 d. Can't Say

3. How many of them opted for Biology only?

a. 100 b. 60 c. 40 d. Can't Say

Problem Keywords

- Only Regions
- Atleast Regions
- At-Most Regions
- All Three (four etc.)



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3 Circle Venn Diagram - Visualization

60 drink tea, 70 drink coffee, 80 drink cold drink. Among these, there are 20 preferring tea & coffee, 25 prefer tea & cold drink and 30 prefer coffee & cold drink. 5 students prefer tea, coffee and cold drink.

1. Total Students who prefer at least one drink?
2. Students who prefer coffee only?
3. Students who prefer cold drinks only?

Out of 210 candidates, 105 were offered tea, 50 were offered juice, and 56 were offered water. 32 were offered tea and juice, 30 were offered juice and water, and 45 were offered water and tea.

Q. Find maximum and minimum number of candidates who were offered all three?

Q. Find maximum and minimum number of candidates who were offered at least one of these?