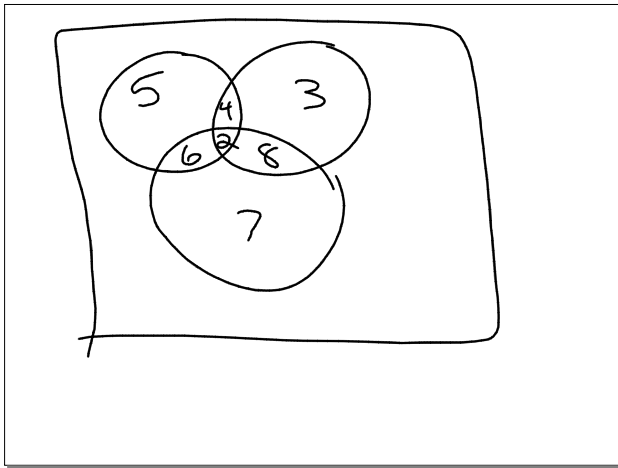


Jan 29-7:52 AM



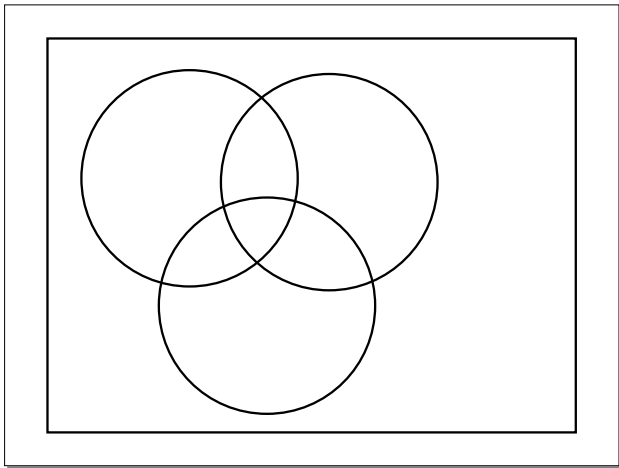
Jan 29-8:38 AM

Suppose that a group of 140 people were questioned about particular sports that they watch regularly and the following information was produced.

93 like football	40 like football and baseball
70 like baseball	25 like baseball and hockey
40 like hockey	28 like football and hockey
20 like all three	

a) How many people like only football?
b) How many people don't like any of the sports?

Jan 29-7:52 AM



Sep 5-8:15 AM

Example: Analyzing a Survey

Construct a Venn diagram. Let F = football, B = baseball, and H = hockey.

A Venn diagram with three overlapping circles labeled F (top-left), B (top-right), and H (bottom). The central intersection where all three circles meet contains the number 20. An arrow points from the text "Start with like all 3" to this central intersection.

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Example: Analyzing a Survey

Construct a Venn diagram. Let F = football, B = baseball, and H = hockey.

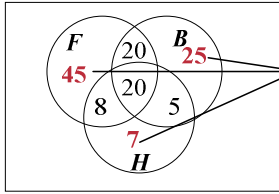
A Venn diagram with three overlapping circles labeled F (top-left), B (top-right), and H (bottom). The numbers in the regions are: 20 in the center intersection of all three; 20 in the intersection of F and B ; 8 in the intersection of F and H ; and 5 in the intersection of B and H . An arrow points from the text "Subtract to get" to the intersection of F and B .

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Example: Analyzing a Survey

Construct a Venn diagram. Let F = football, B = baseball, and H = hockey.



Subtract to get

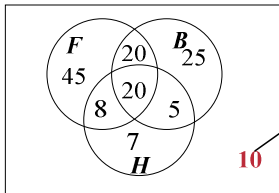
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2-4-7

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Example: Analyzing a Survey

Construct a Venn diagram. Let F = football, B = baseball, and H = hockey.



Subtract total shown from 140 to get

10

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2-4-8

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Analyzing a Survey

- Solution**
(from the Venn diagram)
- a) 45 like only football
 - 10 do not like any sports

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2-4-9

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Example: Applying the Cardinal Number Formula

Find $n(A)$ if
 $n(A \cup B) = 78$, $n(A \cap B) = 21$, and $n(B) = 36$.

Solution

2-4-11

Jan 29-7:52 AM

Example: Analyzing Data in a Table

On a given day, breakfast patrons were categorized according to age and preferred beverage. The results are summarized on the next slide. There will be questions to follow.

2-4-12

Jan 29-7:52 AM

Example: Analyzing Data in a Table

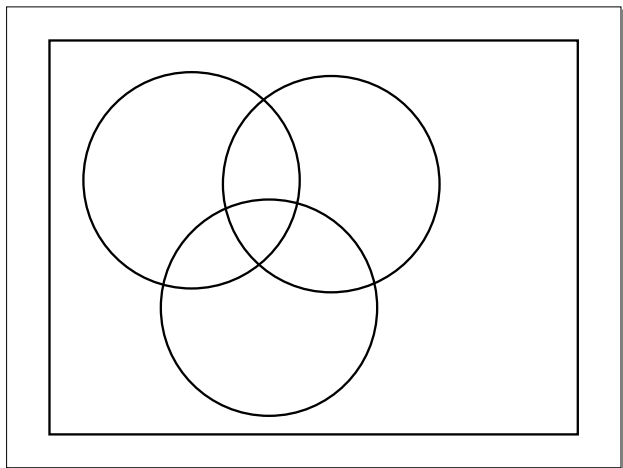
	Coffee	Juice	Tea	Totals
Young	15	22	18	55
Middle Aged	30	25	22	77
Old	45	22	24	91
Totals	90	69	64	223

Using the letters in the table, find the number of people in each of the following sets.

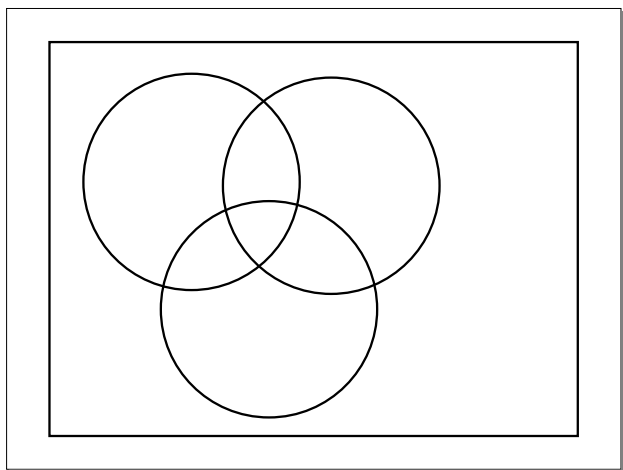
- a) $Y \cap C$ b) $O \cup T$

2-4-14

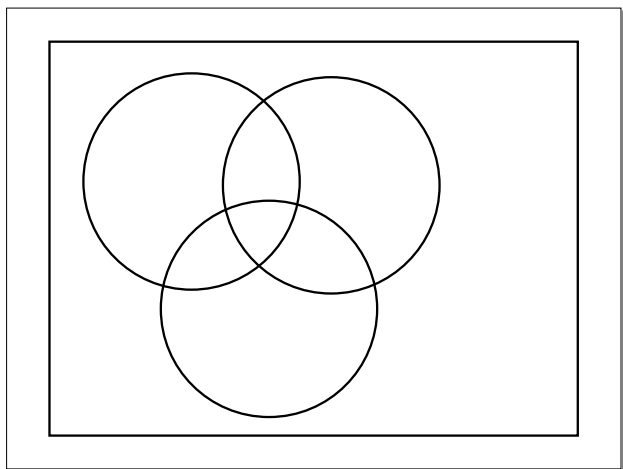
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Sep 5-8:15 AM



Sep 5-8:15 AM
