

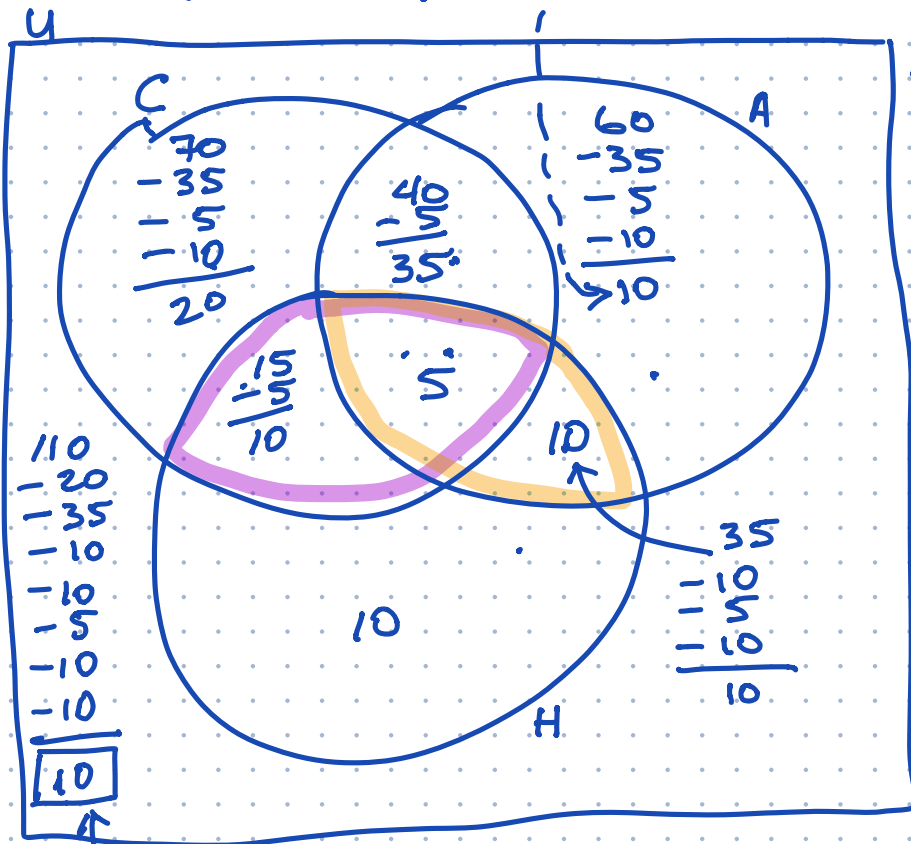
Cancer statistics

"A survey of 110 lung cancer patients showed that 70 were cigarette smokers, 60 lived in urban areas, and 35 had hazardous occupations. Forty of the smokers lived in urban areas, 15 had hazardous occupations, and 5 were in both categories. Ten of the patients with hazardous occupations neither lived in an urban area nor smoked."

How many of the patients living in urban areas had hazardous occupations? $|A \cap H| = 10 + 5 = 15$

How many of those living in the urban areas neither smoked nor had hazardous occupations? $|A \cap \bar{C} \cap \bar{H}| = 10$

How many patients neither smoked, nor lived in an urban area, nor had a hazardous occupation? $|\bar{C} \cap \bar{A} \cap \bar{H}| = 10$



- $|U| = 110 \checkmark$
- $|C| = 70 \checkmark$
- $|A| = 60 \checkmark$
- $|H| = 35 \checkmark$
- $|C \cap A| = 40 \checkmark$
- $|C \cap H| = 15 \checkmark$
- $|C \cap A \cap H| = 5 \checkmark$
- $|H \cap \bar{A} \cap \bar{C}| = 10 \checkmark$