

Constructing a Venn diagram with 3 sets to solve a word problem

Video:

Constructing a Venn diagram with 3 sets to solve a word prob...



Watch on YouTube

0:00

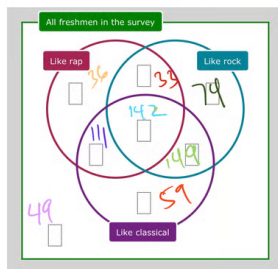
Worked Examples:

Constructing a Venn diagram with 3 sets to solve a word problem

A college radio station surveyed incoming freshmen to gather information about the types of music that they like. Here are the results.

- 653 incoming freshmen were surveyed in all
- 398 of the freshmen like rock
- 322 of the freshmen like rap
- 185 of the freshmen like both rap and rock
- 253 of the freshmen like both rap and classical
- 291 of the freshmen like both rock and classical
- 142 of the freshmen like all three types of music (rap, rock, classical)
- 49 of the freshmen don't like any of these three types of music (rap, rock, classical)

Construct a Venn diagram illustrating these results. Then answer the question.



How many of the freshmen like rap, but like neither rock nor classical?
 freshmen



Start here and work up

$$\begin{array}{r}
 49 \\
 36 \\
 111 \\
 142 \\
 33 \\
 74 \\
 + 149 \\
 \hline
 594
 \end{array}$$

last step (8)

$$\begin{array}{r}
 653 \\
 - 594 \\
 \hline
 59
 \end{array}$$

#Sets