

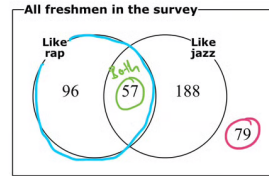
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Interpreting Venn diagram cardinalities with 2 sets for a real-world...

Interpreting Venn diagram cardinalities with 2 sets for a real-world situation

A college radio station surveyed 420 incoming freshmen to see how many like rap music and how many like jazz music.

The Venn diagram below shows the results. (Each number gives the number of freshmen who fall into that Venn diagram category.)



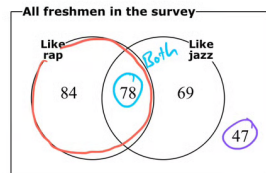
- | | |
|---|---|
| (a) How many of the freshmen like rap music? | <input type="text"/> freshmen $96 + 57 = 153$ |
| (b) How many of the freshmen like neither rap music nor jazz music? | <input type="text"/> freshmen 79 |
| (c) How many of the freshmen do not like both rap music and jazz music? | <input type="text"/> freshmen $96 + 188 + 79 = 363$ |



Interpreting Venn diagram cardinalities with 2 sets for a real-world situation

A college radio station surveyed 278 incoming freshmen to see how many like rap music and how many like jazz music.

The Venn diagram below shows the results. (Each number gives the number of freshmen who fall into that Venn diagram category.)



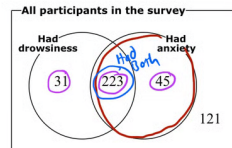
- | | |
|---|--|
| (a) How many of the freshmen like rap music? | <input type="text"/> freshmen $84 + 78 = 162$ |
| (b) How many of the freshmen like neither rap music nor jazz music? | <input type="text"/> freshmen 47 |
| (c) How many of the freshmen do not like both rap music and jazz music? | <input type="text"/> freshmen $84 + 69 + 47 = 200$ |



Interpreting Venn diagram cardinalities with 2 sets for a real-world situation

A drug trial had 420 participants. A survey was taken to determine how many had drowsiness as a side effect and how many had anxiety as a side effect.

The Venn diagram below shows the results. (Each number gives the number of participants who fall into that Venn diagram category.)



- | | |
|--|---|
| (a) How many of the participants had anxiety? | <input type="text"/> participants $223 + 45 = 268$ |
| (b) How many of the participants had drowsiness or anxiety (or both)? | <input type="text"/> participants $31 + 223 + 45 = 299$ |
| (c) How many of the participants did not have both drowsiness and anxiety? | <input type="text"/> participants $31 + 45 + 121 = 197$ |

