

Mathematics

Mixed Questions with Venn Diagrams

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Questions

1) There are 110 teachers in a school.

90 teachers like skittles

41 teachers like smarties

25 teachers like both skittles and smarties.

Work out how many teachers like neither smarties or skittles.

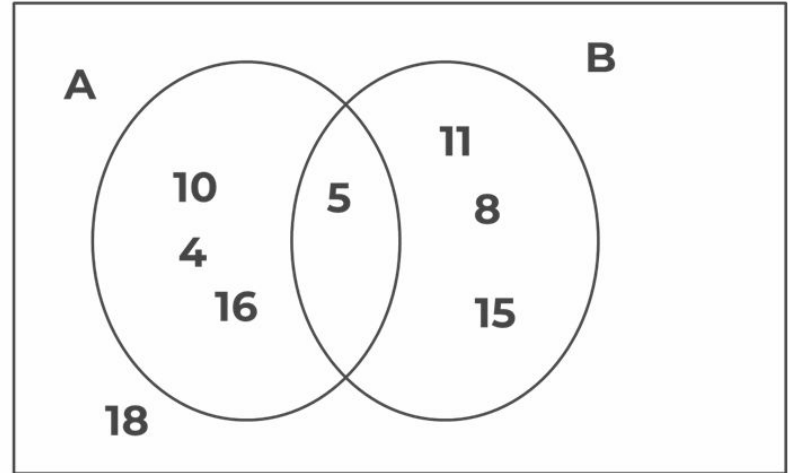


Questions

2) Here is a Venn diagram.

Write down the numbers that are in set:

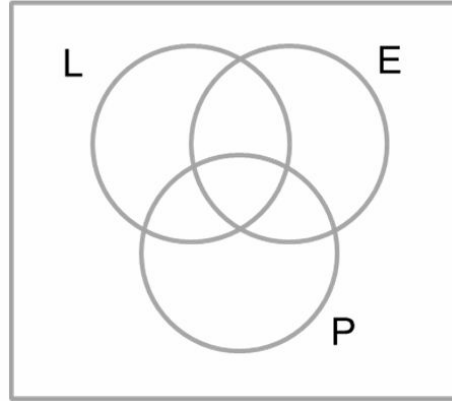
- a) $A \cap B$
- b) $A \cup B$
- c) $P(A' \cap B)$



Questions

3a) The subjects taken by 250 Year 12 students are shown below:

- a) 78 students take Law
- b) 26 students take Engineering
- c) 43 students take PE
- d) 19 students take Law and PE
- e) 3 students take Engineering and PE
- f) 21 students take Law and Engineering
- g) 2 students take Law, Engineering and PE



1) Complete the Venn diagram for the information

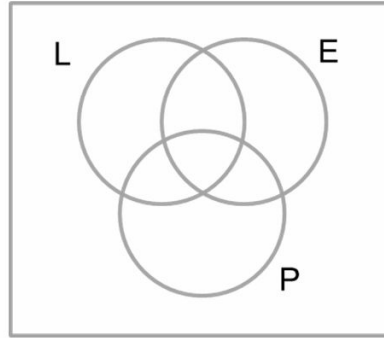


Questions

4)

The subjects taken by 250 Year 12 students are shown below:

- a) 78 students take Law
- b) 26 students take Engineering
- c) 43 students take PE
- d) 19 students take Law and PE
- e) 3 students take Engineering and PE
- f) 21 students take Law and Engineering
- g) 2 students take Law, Engineering and PE



2) Find the probability that a student selected at random:

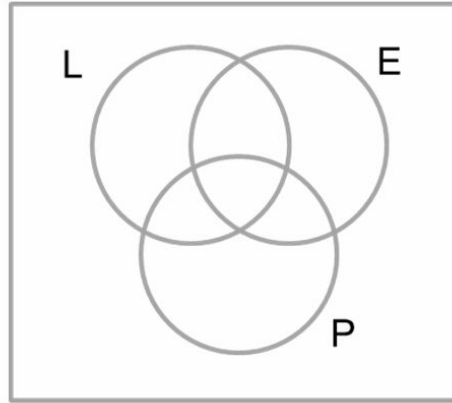
- i. Studies at least one of the three subjects
- ii. Studies no more than one of the subjects
- iii. Studies Law and Engineering but not PE



Questions

The subjects taken by 250 Year 12 students are shown below:

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Given that a student studies PE, find the probability they study Engineering

