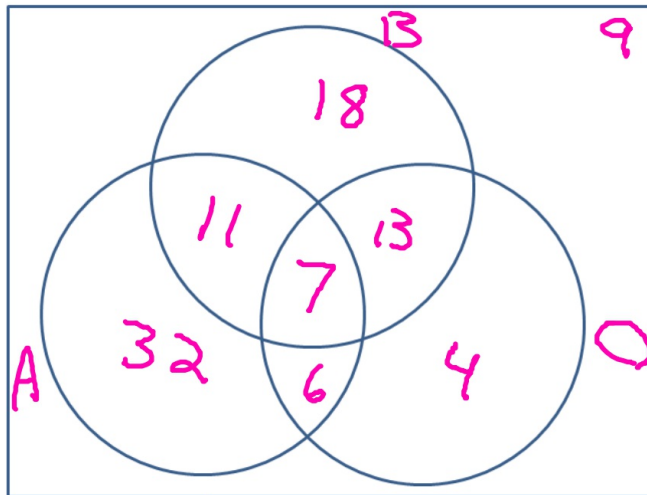


1) A survey was done to find out people's favorite fruits. Oranges received 30%, Apples received 56% and Bananas received 49%. 7% said they liked all 3, 20% said bananas and oranges, 13% said oranges and apples, and 18% said bananas only.



$$P(A \cap B) = 18\%$$

$$P(O \cap B^c) = 10\%$$

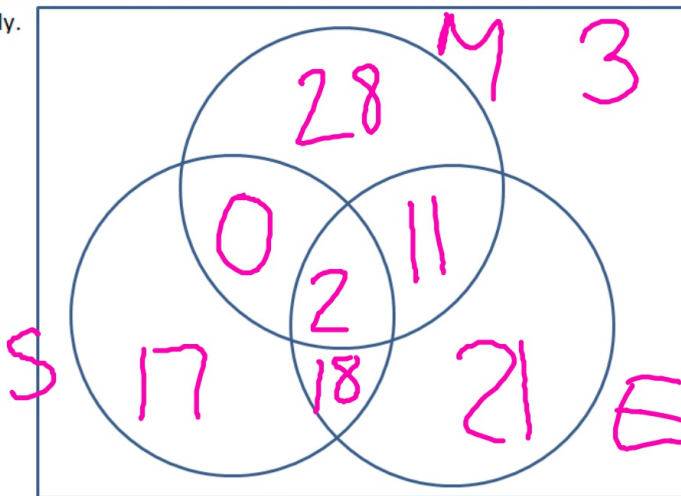
$$P(A \cup B \cup O) = 91\%$$

$$P(A \cup O) = 73\%$$

$$P(B \cap O^c) = 29\%$$

$$P(B^c) = 51\%$$

2) Mr. Helberg did a survey to ask students their favorite subjects. It was found that 37% like science, 41% like math, and 52% like English. 2% like all three subjects, 20% like science and English, 21% like English only and 17% like science only.



$$P(M \cap S) = 2\%$$

$$P(E \cap M^c) = 39\%$$

$$P(E \cap S^c) = 32\%$$

$$P(M \cup E) = 80\%$$

$$P(M \cap E) = 13\%$$

$$P(S \cup E)^c = 31\%$$

$$P(S \cap M^c) = 35\%$$

$$P(S \cup M) = 76\%$$