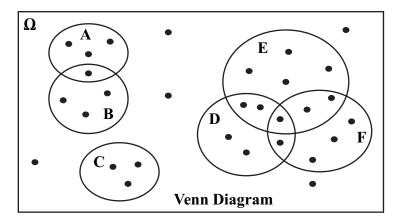
## Functions Worksheet 7 - Answers



In the Venn diagram above (Figure 1), each dot represents a possible outcome. Use the diagram to answer questions 1-5.

- 1. What is P(A or B)?  $\frac{7}{30}$ .
- 2. What is P(A or C)?
- 3. What is P(D or F)?
- 4. What is P(C or D)?  $\frac{9}{30}$ .
- 5. What is P((D and E) or F)?  $\frac{9}{30}$ .

The probabilities for the Venn diagram are  $P(A)=\frac{4}{30},\ P(B)=\frac{4}{30},\ P(C)=\frac{3}{30},\ P(D)=\frac{6}{30},\ P(E)=\frac{9}{30},\ {\rm and}\ P(F)=\frac{1}{30}$ 

 $\frac{7}{30}$ . Use the addition formula and additional information provided to answer questions 6-10. Verify your answers using the Venn diagram.

- 6.  $P(D \text{ and } E) = \frac{3}{30}$ . What is P(D and E)?
- 7. P(C and E) = 0. What is P(C or E)  $\frac{12}{30}$ .
- 8.  $P(E \text{ and } F) = \frac{3}{30}$ . What is  $P(E \text{ or } E) = \frac{13}{30}$ .
- 9.  $P(A \text{ or } B) = \frac{7}{30} \text{and } P((A \text{ or } B) \text{ and } C) = 0$ . What is P((A or B) or C)?
- 10.  $P(E \text{ and } F) = \frac{3}{30} \text{ and } P(Dand(E \text{ and } F)) = \frac{\frac{1}{30}}{\frac{8}{30}}$ . What is P(D or (E and F))?

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