1. Roll 2 standard six sided number cubes. Write the sample space.

- 2. What is the probability of rolling an 8?
- 3. What is the probability of rolling a 7?
- 4. What is the probability of rolling at least a 10?
- 5. What is the probability of rolling a number less than 4?

Let A = Roll a 7 or more

Let B = Roll a 1 or 2 on the first die.

- 6. P(A)=
- 7. P(B)=
- 8.  $P(A^c)=$
- 9. P(B<sup>c</sup>)=
- 10.  $P(A \cap B) =$
- 11.  $P(A \cup B) =$

For the following, it may be helpful to draw a Venn diagram and shade each part.

12. 
$$P(A^c \cup B^c) =$$

13. 
$$P(A^c \cap B^c) =$$

14. 
$$P(A^c \cup B) =$$

15. 
$$P(A^c \cap B) =$$

16. 
$$P(A \cup B^c) =$$

17. 
$$P(A \cap B^c) =$$