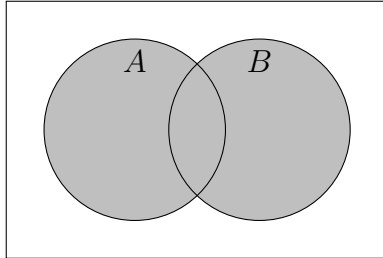


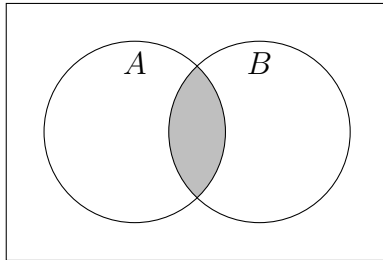
4.8 Pop Quiz: Venn diagrams & sets

1. For each Venn diagram, write an expression representing the shaded area.

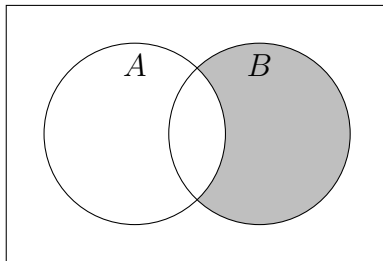
(a) For example, for this diagram



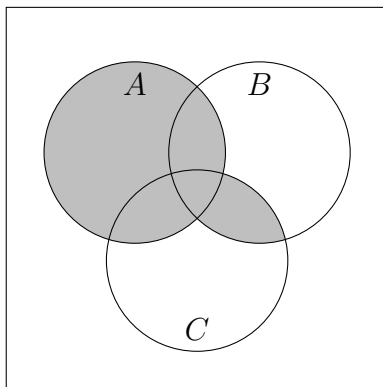
Expression:



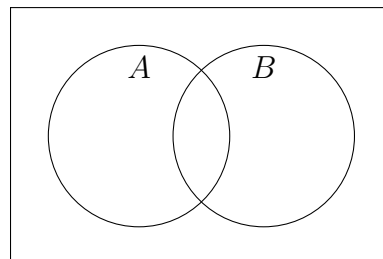
(b) Expression:



(c) Expression:



(d) Expression:



2. Shade the area representing $A' \cap B'$

3. Given:

$$A = \{a, b, c, d, e\} \quad B = \{a, e, i, o, u\}$$

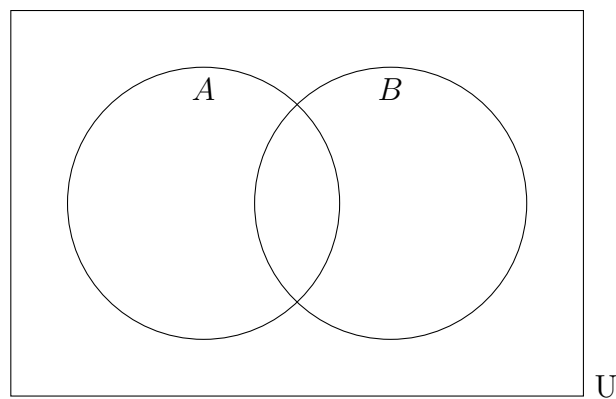
(a) What is $A \cup B$?

(b) What is $A \cap B$?

4. Suppose there are 19 species of fruit-eating monkeys in the western hemisphere. Their diets are as follows:

- 16 species of monkeys eat bananas
- 12 species eat apples
- 11 eat both apples and bananas

Complete the Venn diagram below, writing the number of species of fruit-eating monkeys in each region to represent the situation. (Use “A” for apple, “B” for banana)



How many species have a diet that does not include apples nor bananas?

5. A survey question has three possible responses, A , B , and C . Among 100 surveys, the frequencies of the answers collected were $n(A) = 40$, $n(B) = 35$, and $n(C) = 25$.

(a) If a survey is selected at random, what is the probability the response was B ?

(b) What is the probability a survey selected at random was an answer other than C ?