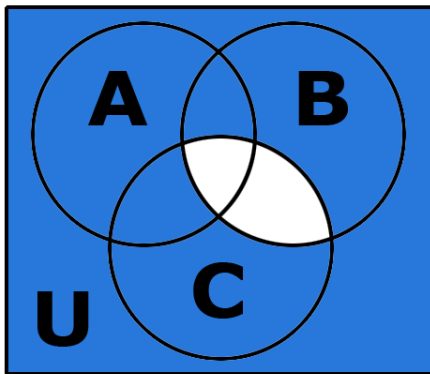
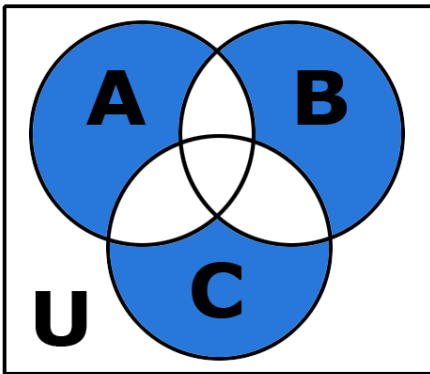


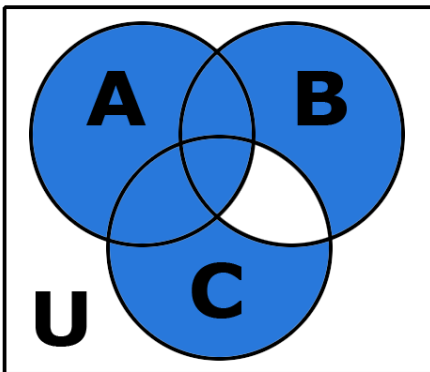
1. (2 points) Library/SDSU/Discrete/Sets/VennB7/VennB7.pg
 Which of the following Venn diagrams corresponds to $U - (B \cap C)$?



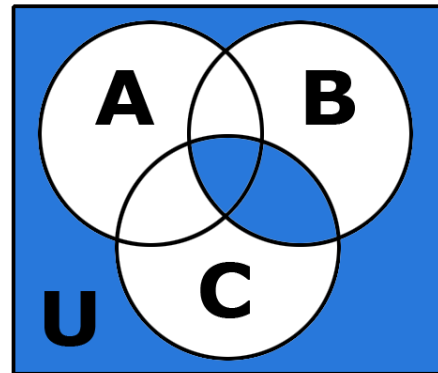
• A.



• B.

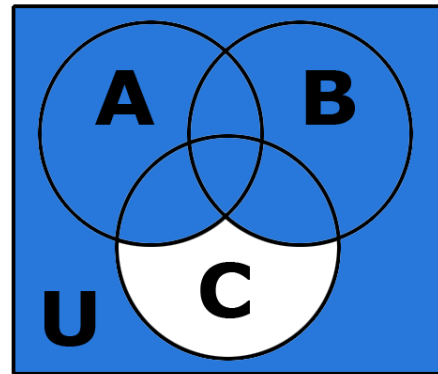


• C.

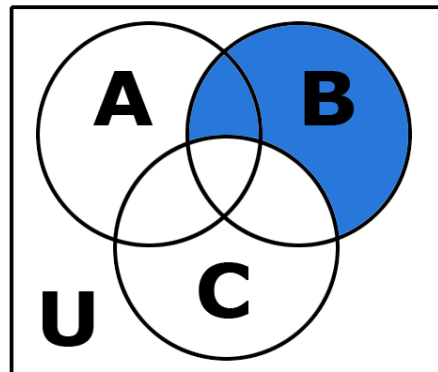


• D.

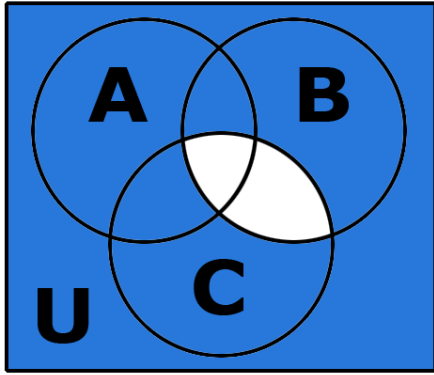
2. (2 points) Library/SDSU/Discrete/Sets/VennB6/VennB6.pg
 Which of the following Venn diagrams corresponds to $B \cup C^c$?



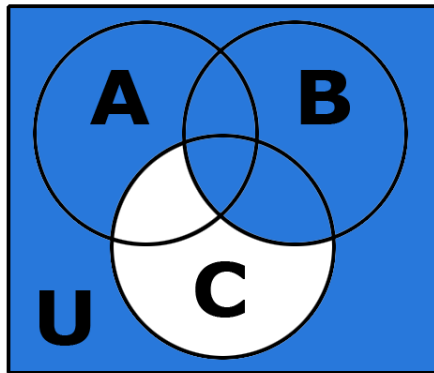
• A.



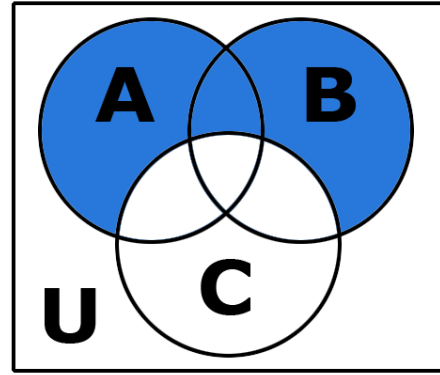
• B.



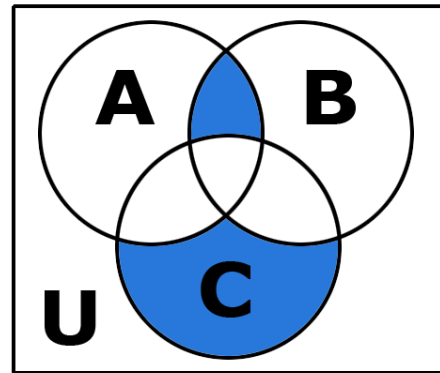
• C.



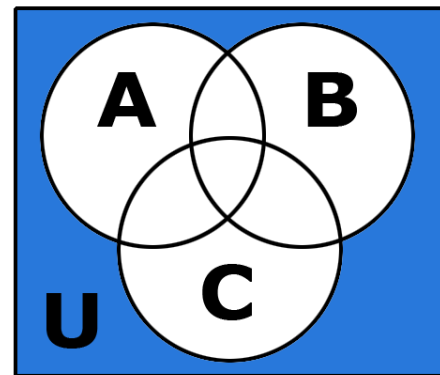
• D.



• B.

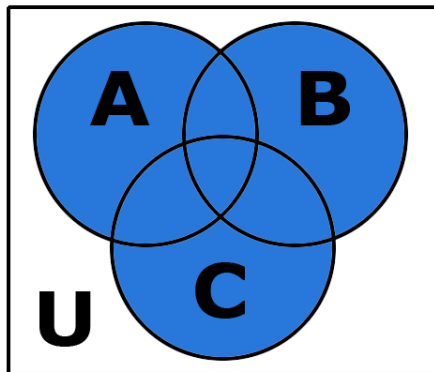


• C.



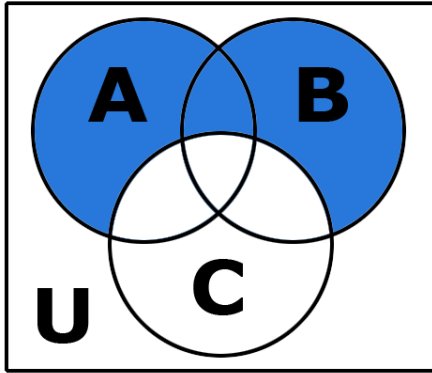
• D.

3. (2 points) Library/SDSU/Discrete/Sets/VennB11/VennB11.pg
Which of the following Venn diagrams corresponds to $(A \cup B) \cap C^c$?

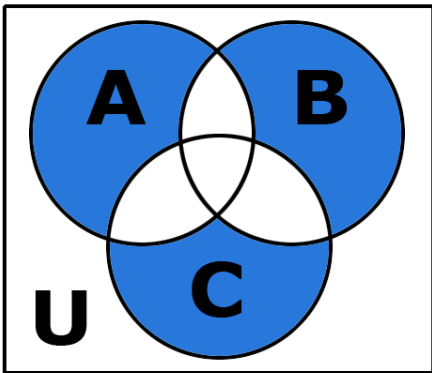


• A.

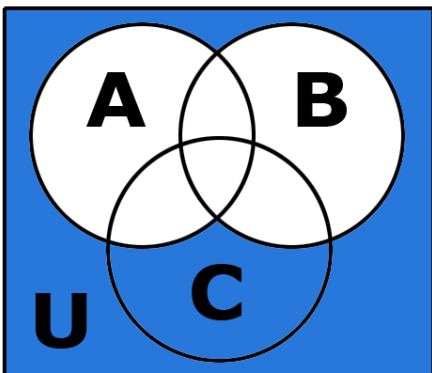
4. (2 points) Library/SDSU/Discrete/Sets/VennB4/VennB4.pg
Which of the following Venn diagrams corresponds to $A^c \cap B^c$?



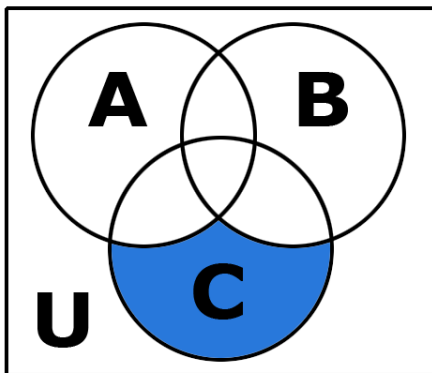
• A.



• B.



• C.



• D.

5. (6 points) Library/SDSU/Discrete/Sets/inclexclA2.pg

Suppose $N(A) = 30$, $N(B) = 20$, and $N(A \cap B) = 6$
How many elements are in $A \cup B$? ____

6. (7 points) Library/Mizzou/Finite_Math/Set_Theory_Addition_and_Multiplication_Principles/SizeOfUnions2.pg
Suppose that A and B are sets with

$$n(A') = 393, n(B') = 461, n((A \cup B)') = 323, \text{ and } n(U) = 575.$$

Find the following:

$$n(A) = \underline{\hspace{2cm}}$$

$$n(B) = \underline{\hspace{2cm}}$$

$$n(A \cup B) = \underline{\hspace{2cm}}$$

$$n(A \cap B) = \underline{\hspace{2cm}}$$

$$n(A \cap B') = \underline{\hspace{2cm}}$$

$$n(A' \cap B) = \underline{\hspace{2cm}}$$

$$n(A' \cap B') = \underline{\hspace{2cm}}$$

7. (6 points) Library/Mizzou/Finite_Math/Set_Theory/UnionIntersection2.pg

There are 373 students in a college who have taken a course in calculus, 230 who have take a course in discrete mathematics, and 184 who have taken a course in both calculus and discrete mathematics. How many students at this college have taken a course in either calculus or discrete mathematics?

8. (6 points) Library/Mizzou/Finite_Math/Set_Theory_Addition_and_Multiplication_Principles/cards1.pg

A standard deck of cards consists of four suits (clubs, diamonds, hearts, and spades), with each suit containing 13 cards (ace, two through ten, jack, queen, and king) for a total of 52 cards in all.

How many cards in the deck are either a jack or a heart?

How many cards are face cards or clubs?

How many cards are red (diamonds or hearts) or queens?

9. (6 points) Library/SDSU/Discrete/Sets/inclexclB4.pg

Suppose $N(A) = 100$, $N(B) = 200$, $N(C) = 300$
 $N(A \cap B) = 10$, $N(A \cap C) = 15$, $N(B \cap C) = 20$
 $N(A \cap B \cap C) = 5$
 $N(A \cup B \cup C) = \underline{\hspace{2cm}}$

10. (6 points) Library/SDSU/Discrete/Sets/inclB3.pg

A random sample of 330 people showed that 120 people like Italian food, 210 people like Mexican food, and 220 people like American food. If 60 like both Italian and Mexican, 75 like both Italian and American, and 100 like both Mexican and American, how many people like all three? _____

11. (6 points) Library/Mizzou/Finite_Math/Set_Theory_Addition_and_Multiplication_Principles/SurveyWordProblem(3sets)1.pg

A survey of 1,000 employees in a company revealed that 243

like rock music, 362 like pop music, 96 like jazz, 141 like pop and rock music, 53 like jazz and rock, 40 like pop and jazz, and 13 employees like all three.

How many employees do not like jazz, pop, or rock music?

How many employees like pop but not jazz? _____

12. (6 points) Library/ASU-topics/setSets/ur_dis_11_4.pg

How many elements are in the union of four sets if each of the sets has 99 elements, each pair of sets share 46 elements, each triple of sets shares 29 elements and there are 3 elements in all four sets.
