

# Mat 116: Group Activity 1

## Covers Chap 1, 2, 3

1. p. 35 (Chap 2), Question 1, Group 1  
 $4 \in A$ . In other words, is 4 an element of set A? Yes, it is part of A, thus TRUE.

2. p. 35 (Chap 2), Question 3, Group 2

3. p. 35 (Chap 2), Question 5, Group 3

4. p. 35 (Chap 2), Question 13, Group 4  
AUC, meaning the set of all elements, which are in set A or in set B.  
 $A = \{\text{baseball, soccer, hockey, football}\}$   
 $C = \{\text{hockey, basketball, rugby, baseball}\}$

$AUC = \{\text{baseball, soccer, hockey, football, basketball, rugby}\}$

5. p. 35 (Chap 2), Question 15, Group 5

6. p. 35 (Chap 2), Question 19, Group 1

7. p. 35 (Chap 2), Question 21, Group 2

8. p. 35 (Chap 2), Question 23, Group 3

9. p. 36 (Chap 2), Question 25, Group 4

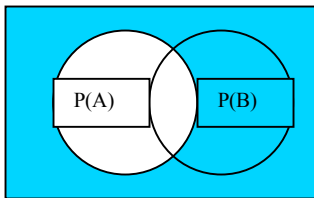
10. p. 36 (Chap 2), Question 27, Group 5

11. p. 36 (Chap 2), Question 31, Group 1

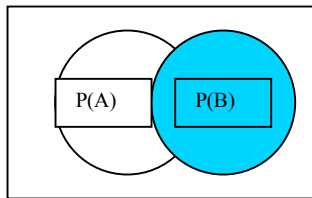
12. p. 37 (Chap 2), Question 33, Group 2

13. p. 37 (Chap 2), Question 37, Group 3

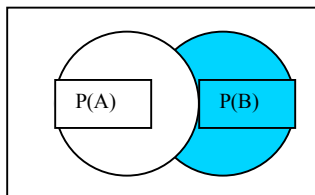
$P(A^c)$



$P(B)$



$P(A^c \cap B)$



14. p. 38 (Chap 2), Question 39, Group 4

15. p. 38 (Chap 2), Question 43, Group 5

16. p. 59 (Chap 3), Question 1, Group 1  
Remember sample space is the set of all possible outcomes.  
 $S = \{HH, HT, TH, TT\}$   
4 possible outcomes where H = heads and T = tails.

17. p. 59 (Chap 3), Question 5, Group 2

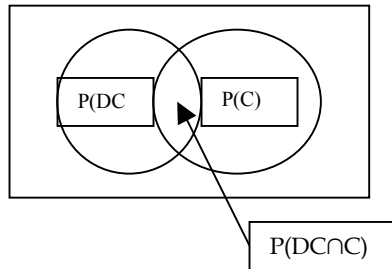
18. p. 59 (Chap 3), Question 9, Group 3

19. p. 59 (Chap 3), Question 13, Group 4

20. p. 60 (Chap 3), Question 21, Group 5  
3 and 6, 6 and 3, 4 and 5, 5 and 4  
Thus, 4 outcomes out of 36 possible outcomes ( $4/36$  or roughly 11%)

21. p. 60 (Chap 3), Question 35, Group 1

$S = 900$ ,  $P(DC) = 300$ ,  $P(C) = 400$ ,  $P(DC \cap C) = 50$



- b.  $50/900$
- c.  $350/900$
- d.
- e.
- f.
- g.

22. p. 60 (Chap 3), Question 37, Group 2

23. p. 59 (Chap 3), Question 39, Group 3

24. p. 59 (Chap 3), Question 41, Group 4

25. p. 59 (Chap 3), Question 43, Group 5