CHAPTER 2, TEST A

1. (a) 30 (b) 25 2. (a) 4 (b) 38

3. A - B or $A \cap B'$ 4. 8

5. (a) 5 (b) 28 (c) 7

6. 2 4 8 . . . 2^n . . . This one-to-one correspondence shows
   O **O** **O** **O** that the two sets have the same cardinal
   1 2 3 . . . n . . . number.

7. Only c. defines a set

8. {2, 4, 6, 8}

9. (a) The set of positive even integers, starting with 4.
   $\{x \mid x = 2n, n = 2, 3, 4, \ldots\}$
   (b) The set of positive odd integers, starting with 3.
   $\{x \mid x = 2n + 1, n = 1, 2, 3, \ldots\}$

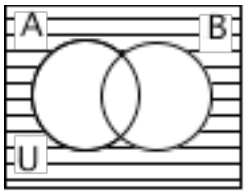
10. $\varnothing$, {1}, {2}, {3}, {1, 2}, {1, 3}, {2, 3}, {1, 2, 3}

11. (a) B - A (b) $A \cap B$ (c) $A \cup B$

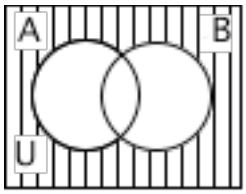
12. (a) {a, d} (b) {a, b, c, e} (c) {a, b, d} (d) {c, e} (e) {a}

13. (a) {b, e} (b) {c}

14.

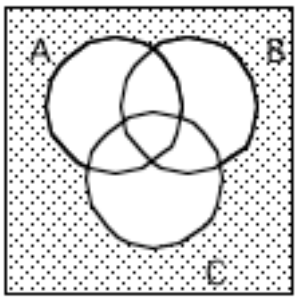


$(A \cup B)'$



$A' \cap B'$

15.



16. (a) Region 5
(b) Regions 3, 4, 5, 6, 7
(c) Regions 2, 6
(d) Regions 3, 4, 5, 6, 7

CHAPTER 2, TEST B

1. (a) 2. (b) 3. (d) 4. (c) 5. (a) 6. (d)

7. (c) 8. (b) 9. (c) 10. (e) 11. (e) 12. (b)

13. (d) 14. (c) 15. (c) 16. (d) 17. (d) 18. (c)

19. (a) 20. (b) 21. (b) 22. (d)