

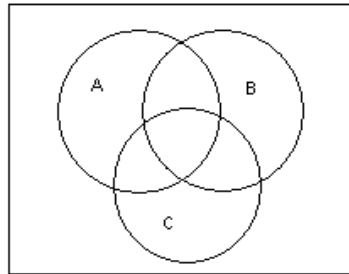
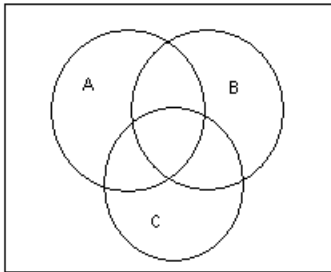
1) Given $A = \{1, 2, 3\}$ $B = \{1, 3, 5\}$ $C = \{4, 5\}$ $U = \{0, 1, 2, 3, 4, 5\}$ find;

a) $A \cup B$ b) $A \cap C$ c) $\overline{A} \cap C$ d) $(A \cup B) \cap \overline{C}$ e) $\overline{(A \cap B)} \cap (\overline{A} \cup B)$

2) Shade in the region of the Venn diagram that is represented by the expression. (CLEARLY and NEATLY)

a) $\overline{(A \cup C)} \cap B$

b) $\overline{A \cap (B \cup C)}$



3) List all subsets of $\{x, y\}$

4) What set is a subset of $\{0, 1, 7\}$, but not a proper subset?

5) If $c(A \cup B) = 60$, $c(A) = 45$, and $c(B) = 33$, then find $c(A \cap B)$.

6) 50 marbles are in a box. 17 are blue, 22 are large, and 4 are large and blue.

(Draw a Venn diagram to the right to support your answers.)

- How many are large or blue?
- How many are large, but not blue?
- How many are blue, but not large?
- How many are blue or not large?
- How many are not blue and not large?
- How many are neither blue nor large?
- How many are not blue or not large?

7) Out of 160 people at the reception, 42 ate fish, 32 ate steak, 78 ate rigatoni, 30 ate fish and rigatoni, 15 ate rigatoni and steak, 3 ate fish and steak, and 3 ate all three. (Assume only these three were served)

- How many just ate fish?
- How many ate fish or rigatoni?
- How many ate fish and steak, but not rigatoni?
- How many ate fish or didn't eat steak?
- How many ate neither fish nor steak?
- How many didn't eat fish or didn't eat steak?
- How many ate neither fish, steak, nor rigatoni?
- How many ate only rigatoni?

8) A bag contains red, green, and blue chips as described by the table below.

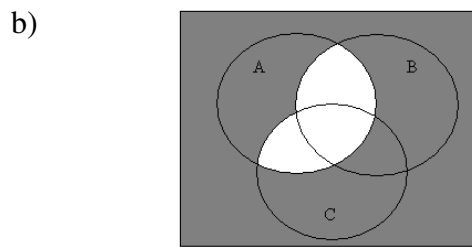
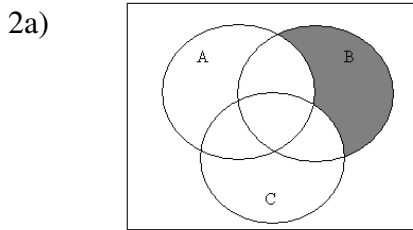
	Solid	Striped	Spotted
Red	5	7	3
Green	2	6	7
Blue	4	9	11

How many chips;

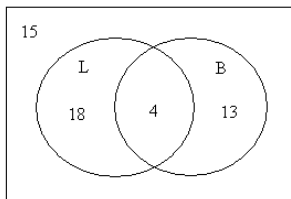
- a) are solid and blue?
- b) are solid or blue?
- c) are red and blue?
- d) are red or blue?
- e) are red or not striped?
- f) Are green, but not spotted?
- g) are neither blue nor solid?
- h) are striped or spotted?
- i) are spotted, but not green?
- j) are red and green, or striped?

Solutions to Practice 1 (revision 0)

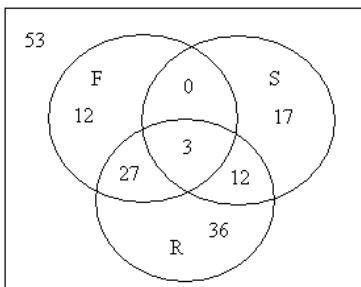
- 1a) {1, 2, 3, 5} b) \emptyset c) {4, 5} d) {1, 2, 3} e) {0, 4, 5}



- 3) , \emptyset {x}, {y}, and {x, y} 4) {0, 1, 7} 5) 18



- 6a) 35 b) 18 c) 13
 d) 32 e) 15
 f) 15 g) 46



- 7a) 12 b) 90
 c) 0 d) 131
 e) 89 f) 157
 g) 53 h) 36

- 8a) 4 b) 31 c) 0 d) 39 e) 39 f) 8 g) 23 h) 43 i) 14 j) 22