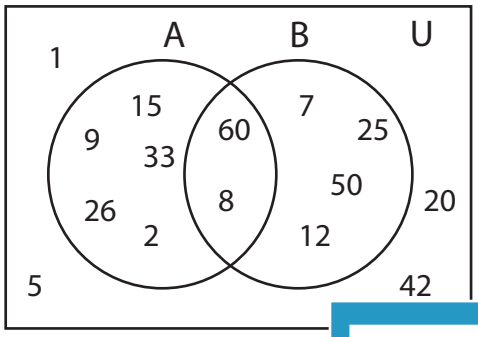
Name : _____ Score : _____

Venn Diagram

L3S1

Perform the below mention boolean algebraic operation for the given set of elements.

1)

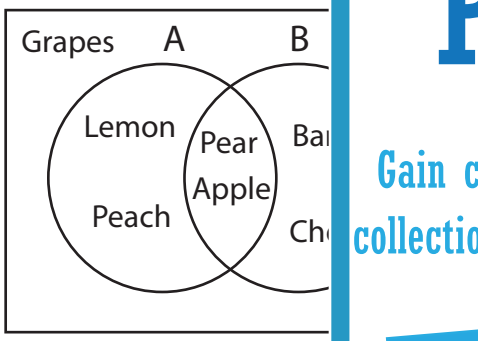


i) A U (A – B) = _____

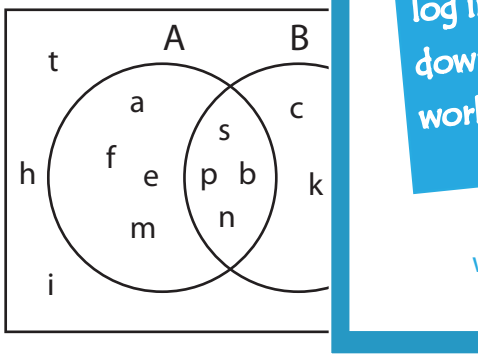
ii) (A′ – B′)′ U (B′ – A′) = _____

iii) (A′ – B′) – (A ∩ B) = _____

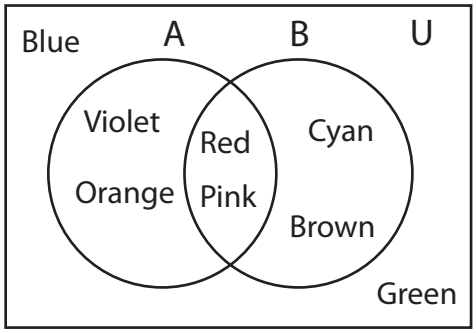
2)



3)



4)



i) (B U B′) – (A′ – B) = _____

ii) (A′ – B)′ ∩ (A – B′) = _____

iii) (A′ ∩ B) U (A ∩ B′) = _____

Name : _____ Score : _____

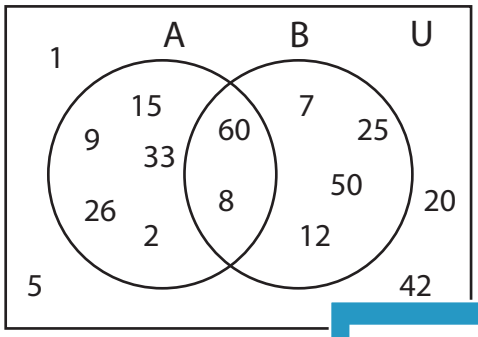
Answer key

Venn Diagram

L3S1

Perform the below mention boolean algebraic operation for the given set of elements.

1)

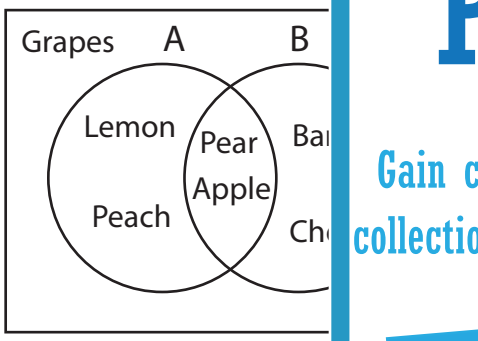


i) A U (A – B) = {2, 8, 9, 15, 26, 33, 60}

ii) (A′ – B′)′ U (B′ – A′) = {1, 2, 5, 8, 9, 15, 20, 26, 33, 42, 60}

iii) (A′ – B′) – (A ∩ B) = {7, 12, 25, 50}

2)

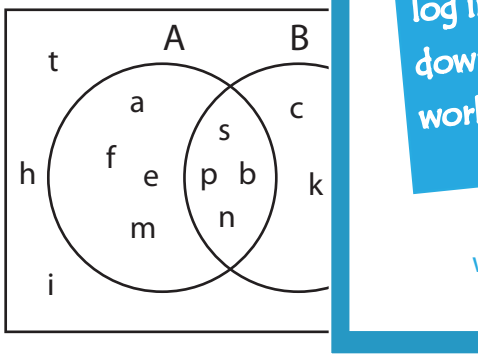


h, Pear, Apple}

h, Banana, Cherry}

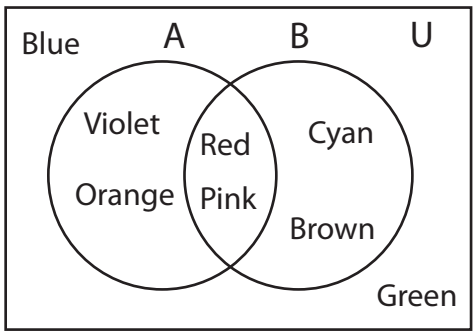
on, Peach, Banana, Cherry}

3)



i, k, m, t, u, z}

4)



i) (B U B′) – (A′ – B) = {Violet, Orange, Red, Pink, Cyan, Brown}

ii) (A′ – B)′ ∩ (A – B′) = {Red, Pink}

iii) (A′ ∩ B) U (A ∩ B′) = {Violet, Orange, Cyan, Brown}