**5.2**

a) all members of sets A and B

b) cardinality of sets A and B

1. A= {4,5,6,7,8,9,10,11}

B= {-5,-4,-3,-2,-1,0,1,2,3,4,5}

1. Cardinality of A = 8

Cardinality of B = 11

**5.4**

a) W = {1,2,4,5,6,7,9,10}

b) Zc = {1,4,5,6,7,8,10}

c) W ∩ X = {2,6,7,9}

d) W ∩ Z = {2,9}

e) Y ∩ Z = Ø

**6.10**

n = int(input("Please enter a number: "))

factorial = 1

a=n+1

if n < 0:

print("Error, factorial does not exist for negative numbers")

elif n == 0:

print("The factorial of 0 is 1")

else:

for i in range(1,n+1):

factorial = factorial\*i

print("The factorial of",i,"is",factorial)