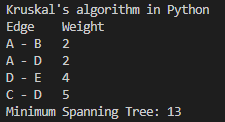
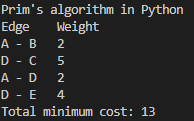
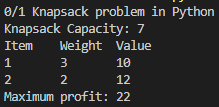
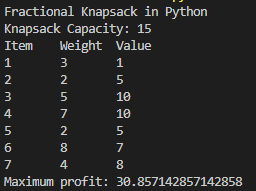
# OUTPUTS

## Implementation in Python:

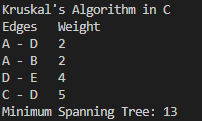
PROGRAM 1  


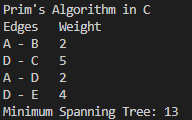
PROGRAM 2  


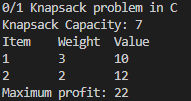
PROGRAM 3  


PROGRAM 4  


## Implementation in C:

PROGRAM 1  


PROGRAM 2  


PROGRAM 3  


PROGRAM 4  
