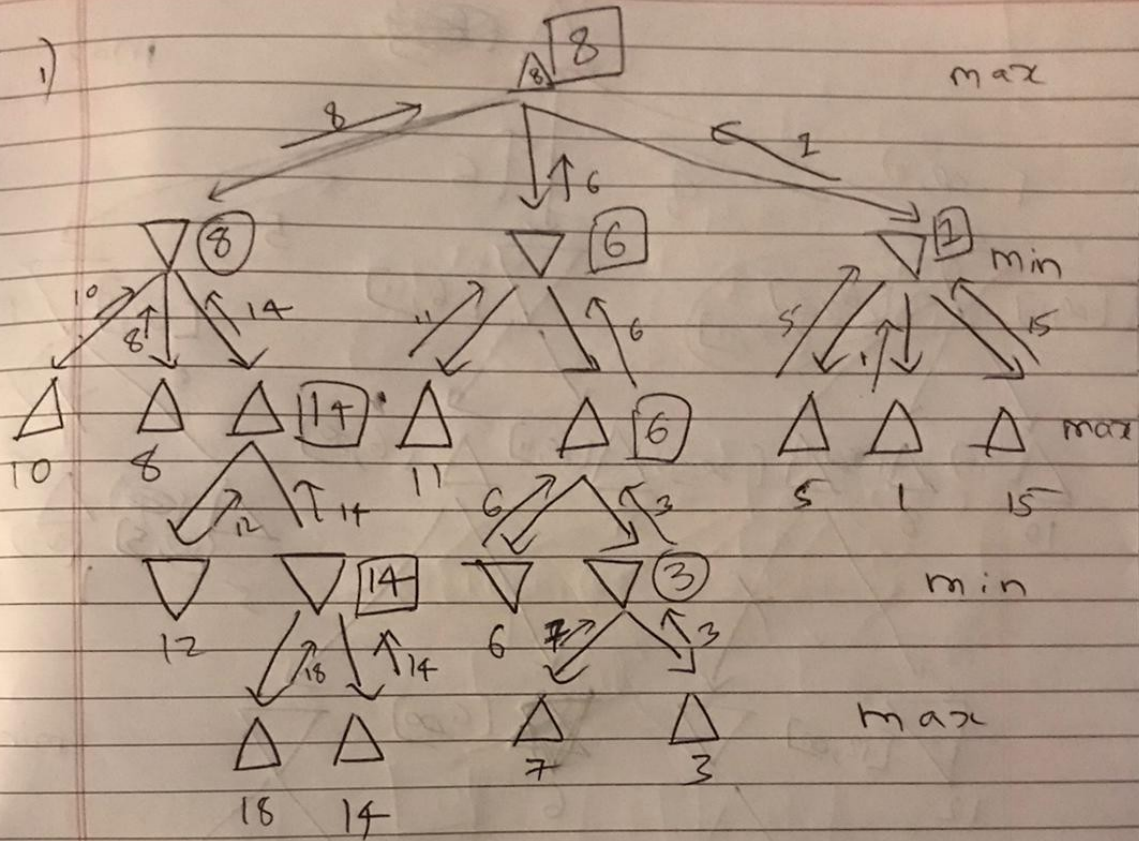
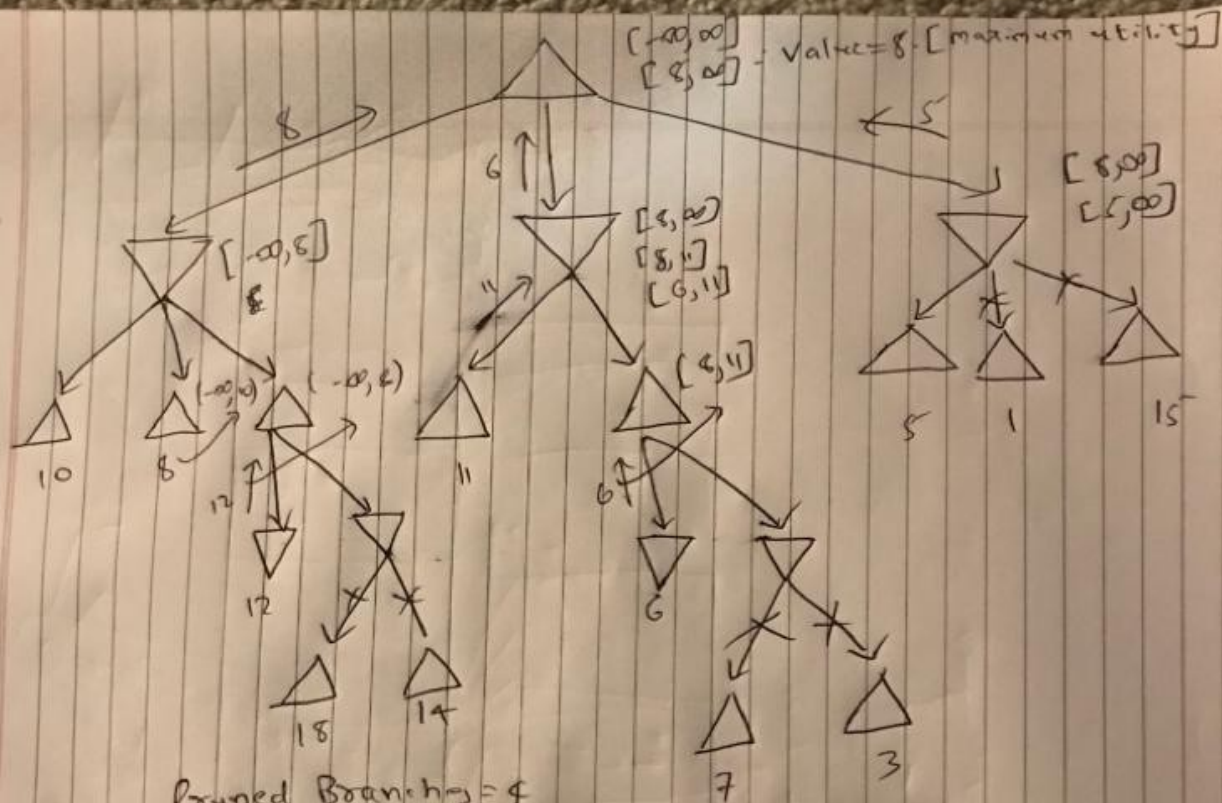


Assignment 2



Solution is 8, which is the maximum utility that max can achieve



Q.3]

classmate

Date

Page

Constraints:-

$A+C$ is odd.

$A+D$ is square of Integer

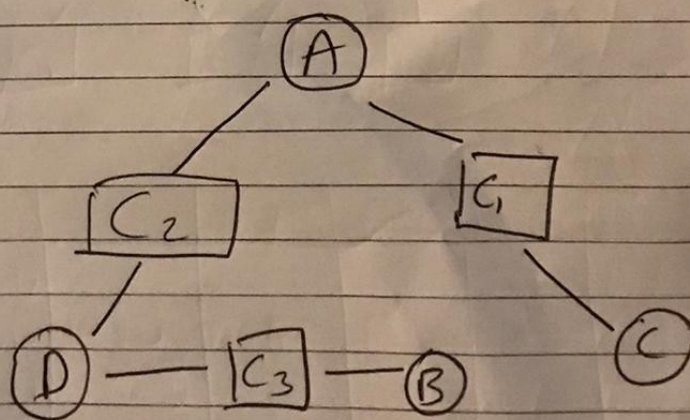
$B+D < 60$.

$A: \{4, 5, 6, 7, 8\}$

$B: \{10, 20, 30, 40\}$

$C: \{2, 3, 4\}$

$D: \{28, 43, 56, 77, 94, 114\}$

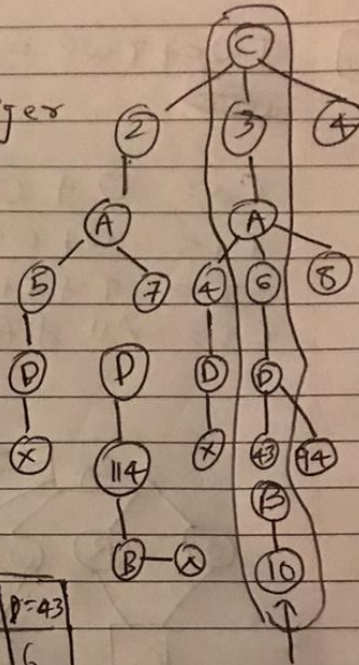


$$A + C = \text{odd}$$

$$A + B = (I)^2 \text{ where } I \text{ is integer}$$

$$B + D < 60$$

E		C=2	A=5
A	{4, 5, 6, 7, 8}	{5, 7}	5
B	{10, 20, 30, 40}	{10, 20, 30, 40}	{10, 20, 30, 40}
C	{2, 3, 4}	2	2
D	{28, 43, 56, 77, 94, 114}	{28, 43, 56, 77, 94, 114}	ϕ



E	A=7	D=114	C=3	A=4	A=6	D=43
A	7	7	{4, 5, 8}	4	6	6
B	{10, 20, 30, 40}	ϕ	{10, 20, 30, 40}	{10, 20, 30, 40}	{10, 20, 30, 40}	{10}
C	2	2	3	3	3	3
D	{114}	114	{28, 43, 56, 77, 94, 114}	ϕ	{43, 94}	43

Solution

E	B=10
A	6
B	10
C	3
D	43

Solution $\rightarrow A=6; B=10; C=3; D=43$

A.] $TWO + TWO = FOUR$

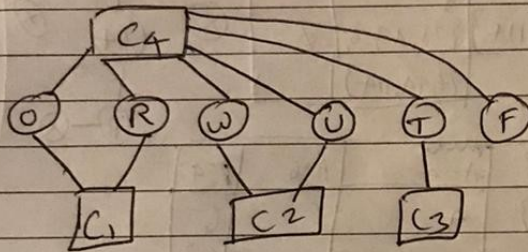
~~Failed~~

$$C_0 = O + O = 10 + R$$

$$C_1 = W + W + 1 = 10 + O$$

$$C_2 = T + T + 1 = 10 + O$$

$$C_3 = \text{All diff } \{O, R, W, U, T, F\}$$



	O=6	O=7	R=4	T=8	W=5	W=6	W=6	U=3
O: {6,7,8,9}	O=6	O=6	O=7	O=7	O=7	O=7	O=7	O=7
R: {0,2,...,9}	R={2}	R={2}	R=4	R=4	R=4	R=4	R=4	R=4
W: {5,...,9}	W={5,9}	W={5,9}	W={5,9}	W={5,9}	W=5	W=5	W=6	W=6
U: {0,2,...,9}	U={0,2,9}	U={0,2,9}	U={0,2,9}	U={0,2,9}	U={0,2,9}	U={0,2,9}	U={3}	U=3
T: {5,...,9}	T={0}	T={0}	T={8}	T=8	T=8	T=8	T=8	T=8
F=1	F=1	F=1	F=1	F=1	F=1	F=1	F=1	F=1

Failed : $D_T = \emptyset$

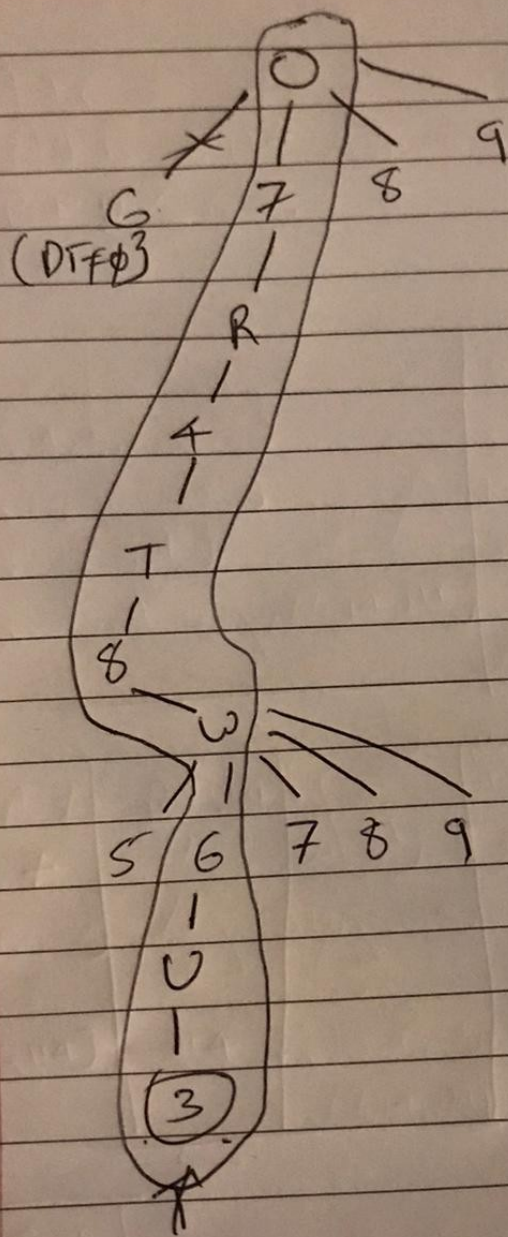
\therefore ~~Failed~~ Backtrack and do $W=6$.

$TWO + TWO$

$$667 + 867 = 1734$$

Solution:

$$\{O:7, R:4, W:6, U:3, T:8, F:1\}$$



Solution