

1)

2.

$$A \Leftrightarrow B \equiv A \vee B \Rightarrow A \wedge B$$

V.S.:

$$(A \Rightarrow B) \wedge (B \Rightarrow A)$$

$$(\neg A \vee B) \wedge (\neg B \vee A)$$

$$(\neg A \vee (B \wedge A)) \vee$$

$$(\neg A \vee B) \wedge \neg B \vee (\neg A \vee B) \wedge A)$$

$$((\neg A \wedge \neg B) \vee (B \wedge \neg B)) \vee ((\neg A \wedge A) \vee (B \wedge A))$$

$$(\neg A \wedge \neg B) \vee (B \wedge \neg B) \vee (\neg A \wedge A) \vee (B \wedge A)$$

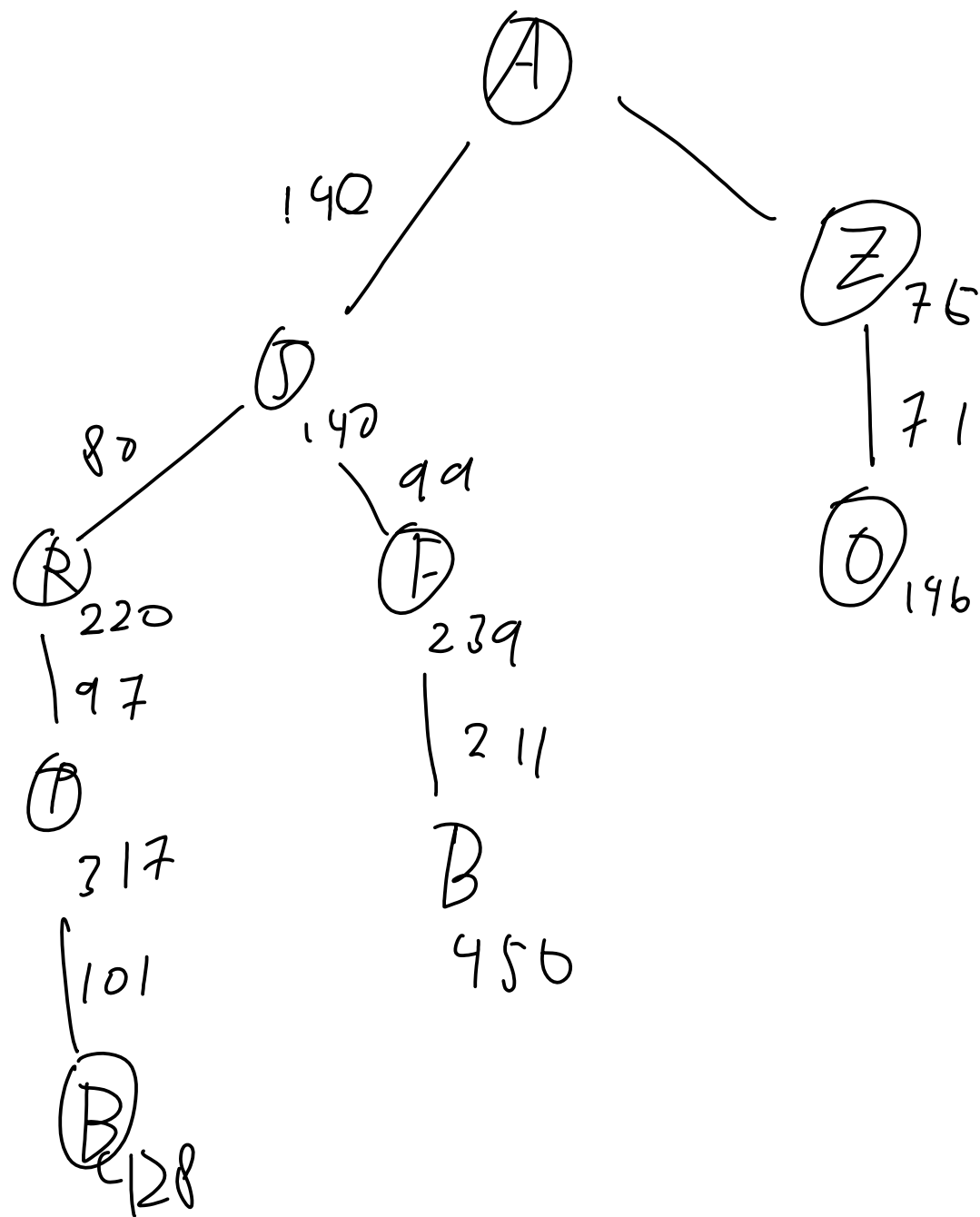
$$(\neg A \wedge \neg B) \vee (B \wedge A)$$

$$(A \wedge B) \vee (B \wedge A)$$

$$A \wedge B$$

2)

expanded	frontier
A	S, Z
S	R, F, O, Z
Z	R, F, O
R	P, F, O
F	P, B, O
O	P, B
P	B
B	



visited

A

Z

S

O

F

P

B

4)

expanded frontier
(g, h, f)

A

S(140, 253, 393), Z(75, 379, 499)

S

Z

R

F

(120, 193, 313) (239, 176, 415)

R

P

Z

F

(217, 100, 317)

P

B

Z

F

(318, 0, 318)

B

ASRPB

Z R F P B