

①

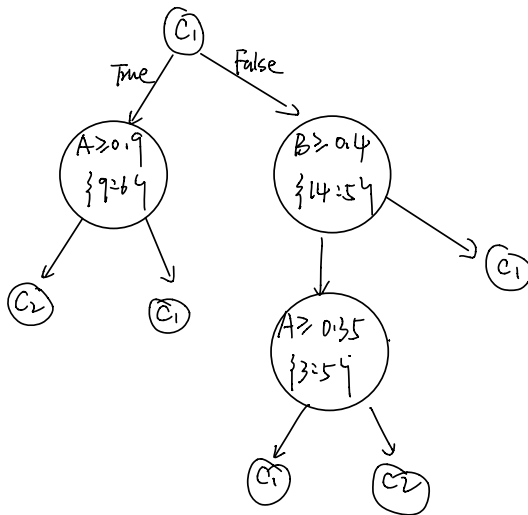
A	B	class
0.5	0.27	C <sub>1</sub>
0.41	0.54	C <sub>1</sub>
0.95	0.3	C <sub>2</sub>
0.25	0.62	C <sub>2</sub>
0.32	0.81	C <sub>2</sub>

# of True is 3

∴ classification is  $\frac{3}{5}$

b) Replace Root,  $23:11 \Rightarrow C_1$

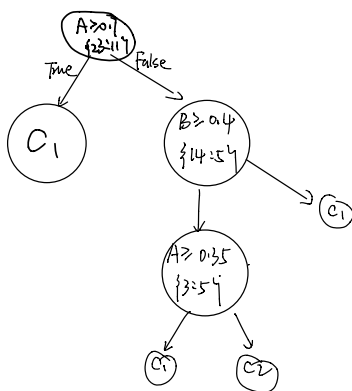
So the new tree is



A	B	class
0.5	0.27	C <sub>1</sub>
0.41	0.54	C <sub>1</sub>
0.95	0.3	C <sub>1</sub>
0.25	0.62	C <sub>1</sub>
0.32	0.81	C <sub>1</sub>

classification is  $\frac{2}{5}$

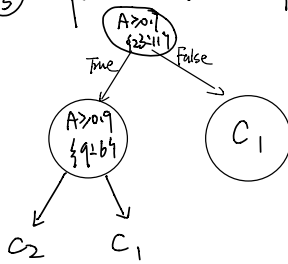
② replace  $A \geq 0.9 \{9:64\} \Rightarrow C_1$



A	B	class
0.5	0.27	C <sub>1</sub>
0.41	0.54	C <sub>1</sub>
0.95	0.3	C <sub>1</sub>
0.25	0.62	C <sub>2</sub>
0.32	0.81	C <sub>2</sub>

classification =  $\frac{2}{5}$

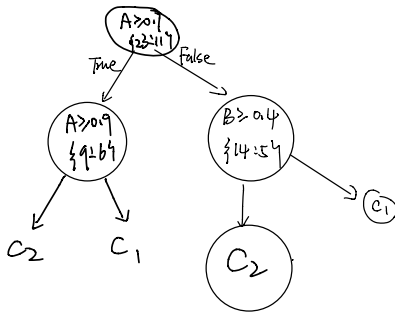
③ replace  $B \geq 0.4 \quad \{14:54\} \Rightarrow C_1$



A	B	class
0.5	0.27	$C_1$
0.41	0.54	$C_1$
0.95	0.3	$C_2$
0.25	0.62	$C_1$
0.32	0.81	$C_1$

$$\text{classification Accuracy} = \frac{3}{5}$$

④ replace  $A \geq 0.35 \quad \{3:54\} \Rightarrow C_2$



A	B	class
0.5	0.27	$C_1$
0.41	0.54	$C_2$
0.95	0.3	$C_2$
0.25	0.62	$C_2$
0.32	0.81	$C_2$

$$\text{classification Accuracy} = \frac{6}{5}$$

⑤, the node  $A \geq 0.35 \quad \{3:54\}$  should be pruned first.