

## Chapter 8, slide 32

$$\Sigma = \Sigma p_1, p_2, p_3$$

$$\Delta = \Sigma \{ \neg p_1, \neg p_2 \}, \Sigma p_2, \neg p_3 \}$$

$$RC(\Delta) = \{ \Sigma \neg p_1, \neg p_3 \}$$

1.  $p_1 := 1$  ✓

2.  ~~$p_2 := 1$~~ ;  $p_2 := 0$  ✓

3.  ~~$p_3 := 1$~~ ;  $p_3 := 0$  ✓ succeed!

## Chapter 8, slide 33

$$\Delta' = \Delta \cup \Sigma \{ \neg p_1, p_2 \} \quad \nexists RC(\Delta')$$

1.  $p_1 := 1$  ✓

2.  ~~$p_2 := 1$~~ ;  ~~$p_2 := 0$~~ ; fail!

$$C_{(u)} = \{ \neg p_1, \neg p_2 \}; C_{(y)} = \{ \neg p_1, p_2 \}$$

$$C_{(ab)} = \{ \neg p_1 \}$$



Chapter 9, slide 15

$$\Delta = \{ \{ \neg P, Q, \neg R \}, \{ \neg \neg P, \neg Q \}, \{ R \}, \{ P, \neg Q \} \}$$

1. UP Rule:  $R \mapsto 1$

$$\{ \{ \neg P, Q \}, \{ \neg \neg P, \neg Q \}, \{ P, \neg Q \} \}$$

2. Splitting Rule:

$$2a. P \mapsto 0$$

$$\{ \{ Q \}, \{ \neg Q \} \}$$

$$3a. \text{UP Rule}$$

$$\{ \perp \}$$

$$2b. \underline{P \mapsto 1}$$

$$\{ \{ \neg Q \} \}$$

$$3b. \text{UP Rule: } \underline{Q \mapsto 0}$$

$$\{ \}$$

## Chapter 9, slide 24

$$\Delta = \{\{1Q, 1P\}, \{1P, 1Q, 1R, 1S\}, \{Q, 1S\}, \{R, 1S\}, \{S\}\}$$

