

EXERCICES D'INITIATION FACILES

PS a	$E \rightarrow F; \bar{E} \rightarrow D; D \rightarrow R$	$\vdash F \vee R$
PS b	$(\bar{A} \wedge \bar{B}) \rightarrow C; B \rightarrow (A \vee D); \bar{A} \wedge \bar{C}$	$\vdash D$
PS c	$\bar{P} \vee \bar{Q}; \bar{P} \rightarrow \bar{R}; S \rightarrow R$	$\vdash Q \rightarrow \bar{S}$
PS d	$P \rightarrow (Q \rightarrow R); \bar{Q} \rightarrow S; \bar{R} \wedge \bar{S}$	$\vdash \bar{P}$
PS e	$H \rightarrow E; E \rightarrow (D \vee P); \bar{P}$	$\vdash D \vee \bar{H}$
PS f	$(B \rightarrow A) \wedge (D \rightarrow C); (A \vee C) \rightarrow E; \bar{E}$	$\vdash \overline{B \vee D}$

PS 1

1988 (1)

$$\overline{P \wedge Q} \vee (R \wedge S); \overline{(R \rightarrow \overline{S}) \rightarrow \overline{Q}} \\ \vdash \overline{P}$$

PS 2

1988 (2)

$$A \rightarrow \overline{B \vee \overline{C}}; \overline{A} \rightarrow (A \wedge D); \overline{B} \rightarrow (C \rightarrow E) \\ \vdash \overline{F} \rightarrow E$$

PS 3

1989 (1)

$$\overline{P} \wedge Q; (\overline{Q} \rightarrow R) \rightarrow T; (T \rightarrow P) \vee \overline{U}; R \rightarrow (U \wedge V) \\ \vdash \overline{R}$$

PS 4

1990 (1)

$$P; Q; [(P \vee R) \wedge (Q \vee S)] \rightarrow [(P \wedge Q) \rightarrow (Q \rightarrow S)]; \\ (S \vee R) \rightarrow T \\ \vdash T \vee R$$

PS 5

1990 (2)

$$A \leftrightarrow (B \rightarrow C); (B \wedge D) \vee \overline{B \vee D}; [(\overline{D \rightarrow C}) \wedge D] \rightarrow C \\ \vdash A$$

PS 6

1991 (1)

$$A \rightarrow B; B \rightarrow [A \rightarrow (C \vee D)]; C \leftrightarrow D; \overline{C \wedge D} \\ \vdash \overline{A}$$

PS 7

1991 (2)

$$(\overline{P} \vee Q) \wedge U; Q \rightarrow (R \wedge S); U \rightarrow \overline{\overline{S} \rightarrow T} \\ \vdash \overline{P \wedge R}$$

PS 8

1992 (1)

$$A \rightarrow B; C \vee \overline{E}; \overline{E} \rightarrow \overline{B \vee D} \\ \vdash \overline{A \wedge \overline{C}}$$

PS 9

1992 (2)

$$P \rightarrow R; \overline{Q} \rightarrow S; (S \wedge R) \rightarrow T; \overline{T} \\ \vdash \overline{P} \vee Q$$

PS 10

1993 (1)

$$\overline{B} \rightarrow \overline{A}; (C \wedge D) \leftrightarrow A; \overline{A} \vee \overline{B} \\ \vdash F \rightarrow (C \rightarrow \overline{D})$$

PS 11

1993 (2)

$$A \vee (B \wedge \overline{C}); D \wedge C \\ \vdash E \rightarrow A$$

PS 12

1994 (1a)

$$\overline{A} \rightarrow B; C \rightarrow D; (C \vee \overline{A}) \vee F; F \rightarrow D; \overline{D} \\ \vdash B$$

PS 13

1994 (1n)

$$A \rightarrow (B \wedge C); \overline{D} \vee (A \wedge E); C \rightarrow (B \rightarrow \overline{E}) \\ \vdash \overline{D}$$

PS 14

1994 (2a)

$$A \leftrightarrow B; C \rightarrow (A \wedge \bar{B}); (P \rightarrow \bar{Q}) \rightarrow \overline{D \rightarrow (E \rightarrow \bar{C})}$$

$$\vdash P \wedge Q$$

PS 15

1994 (2n)

$$\overline{\bar{D} \vee \bar{C}} \rightarrow (\bar{A} \rightarrow B); \overline{C \rightarrow A} \wedge D$$

$$\vdash B \vee E$$

PS 16

1995 (1)

$$A \leftrightarrow B; B \rightarrow (C \wedge D); (D \vee E) \rightarrow F; \bar{F}$$

$$\vdash \overline{A \wedge C}$$

PS 17

1995 (2)

$$P \leftrightarrow Q; R \rightarrow (P \wedge \bar{Q}); (U \rightarrow \bar{V}) \rightarrow \overline{S \vee (T \rightarrow \bar{R})}$$

$$\vdash U \wedge V$$

PS 18

1996 (1)

$$\overline{A \wedge B} \rightarrow (C \rightarrow \bar{D}); \overline{D \rightarrow A} \vee \overline{B \vee \bar{D}}$$

$$\vdash C \rightarrow E$$

PS 19

1996 (2)

$$(A \rightarrow B) \wedge C; B \rightarrow (D \rightarrow E); (\bar{C} \vee \bar{E}) \wedge (\bar{C} \vee \bar{F})$$

$$\vdash \bar{A} \vee \bar{D}$$

PS 20

1997 (2)

$$P \rightarrow Q; R \rightarrow S; T \rightarrow (P \vee R)$$

$$\vdash T \rightarrow (Q \vee S)$$

PS 21

1998 (1)

$$A \leftrightarrow (C \wedge B); C \wedge F; \bar{B} \rightarrow (A \wedge C)$$

$$\vdash \bar{A} \rightarrow [(E \wedge G) \rightarrow D]$$

PS 22

1998 (2)

$$\overline{P \leftrightarrow Q} \vee R; \bar{P}; \overline{\bar{P} \wedge Q}$$

$$\vdash R$$

PS 23

1999 (1)

$$(A \rightarrow B) \wedge C; (D \rightarrow E) \vee \bar{B}; C \rightarrow \overline{E \vee F}$$

$$\vdash A \rightarrow \bar{D}$$

PS 24

1999 (2)

$$P \vee \bar{Q}; R \leftrightarrow Q; \overline{S \wedge \bar{R}}; \bar{T} \vee S$$

$$\vdash \bar{P} \rightarrow \bar{T}$$

PS 25

2000 (1)

$$A \leftrightarrow B; A \rightarrow (C \wedge D); (\bar{D} \rightarrow E) \rightarrow F; \bar{F}$$

$$\vdash B \rightarrow \bar{C}$$

PS 26

2000 (2)

$$(A \rightarrow B) \rightarrow (\bar{C} \vee D); E \leftrightarrow \bar{A}$$

$$\vdash E \rightarrow (\bar{D} \rightarrow \bar{C})$$

PS 27

2001 (1)

$$\overline{\overline{A \rightarrow C}}; \overline{O} \rightarrow (B \wedge A); (\overline{D \rightarrow R}) \vee \overline{\overline{E \vee O}} \\ \vdash (E \vee R) \wedge O$$

PS 28

2001 (2)

$$(\overline{A \rightarrow C}) \rightarrow B; \overline{D} \vee (B \rightarrow E); \overline{\overline{A \vee E}}; C \rightarrow (D \wedge F) \\ \vdash \overline{C}$$

PS 29

2002 (2)

$$A \rightarrow B; B \leftrightarrow \overline{A}; B \rightarrow [(D \rightarrow E) \rightarrow A] \\ \vdash D \wedge \overline{E}$$

PS 30

2003 (1)

$$\overline{(A \rightarrow \overline{A}) \rightarrow \overline{C}}; \overline{C \rightarrow D} \rightarrow \overline{A \rightarrow B}; (D \wedge E) \rightarrow F \\ \vdash \overline{E} \vee F$$

PS 31

2003 (2)

$$(A \rightarrow \overline{A}) \wedge B; (A \rightarrow C) \rightarrow (D \rightarrow E); (E \wedge F) \rightarrow H; F \\ \vdash E \rightarrow H$$

PS 32

2004 (1)

$$(A \leftrightarrow B) \rightarrow \overline{C}; \overline{A \vee B}; (C \wedge F) \vee E \\ \vdash E$$

PS 33

2004 (2)

$$A \leftrightarrow (C \wedge B); C \wedge F; \overline{B} \rightarrow (A \wedge C) \\ \vdash \overline{A} \rightarrow [(H \wedge G) \rightarrow E]$$

PS 34

2005 (1)

$$\overline{S \rightarrow R}; (P \wedge Q) \rightarrow R; \overline{S} \vee Q \\ \vdash \overline{P}$$

PS 35

2005 (2)

$$S \leftrightarrow P; P \rightarrow (Q \rightarrow R); R \rightarrow \overline{R} \\ \vdash Q \rightarrow \overline{S}$$

PS 36

2006 (1)

$$A \rightarrow (B \wedge C); \overline{A} \rightarrow \overline{D \rightarrow E}; E \\ \vdash B$$

PS 37

2006 (2)

$$\overline{A \rightarrow B} \rightarrow \overline{C}; \overline{\overline{B \rightarrow D}}; (\overline{D} \rightarrow E) \rightarrow A; E \rightarrow (C \wedge F) \\ \vdash \overline{E}$$

PS 38

2007 (1)

$$F \leftrightarrow \overline{B}; \overline{\overline{D \vee E}} \rightarrow (B \wedge \overline{C}) \\ \vdash F \rightarrow (\overline{E} \rightarrow \overline{D})$$