## 作业

p.559(p.184)

14. (2),(4),(5)

14. (2)

- 0 AxB-B) 12- AxB-B)
- @ \$x6270,2+27B (Y-)0
- 3 KQ=0,2+2(e)
- (4) \x 12-13,2+ B (>-)@(P)
- € 4×6-6),2+21B(N+)B@
- (+E) (8/6) x F 7 x (8/6) (3+)
- (-12) (ANS)XE + XXE, (B -5)XH (B)

(4)

- B 2+2 (e)
- @ (+ E) &xE + S @
- 32 34x2 (3+) @
- @ 342+34x2 (3-) B
- (-E) LAVE -LEVE (3)
- (5) (B 492 498(E)
  - @ Y42+2(Y-) (i)
  - (+E) EXE + SEP (B)
  - (4) BY ETH 1978 (4)
  - (3) SXEM MAKE (3)

## 作业

p.559(p.184)

- 6. 若y对x在 $\alpha$ 中自由,且y不在 $\alpha$ 中自由出现,则  $\forall x \alpha \mapsto \forall y \alpha (x/y)$ .
- 7.
- 9. 证明例12的(2),(4)
- 12. 证明: 若 $\Gamma$ ,  $\alpha \vdash_{N_{\mathfrak{L}}} \beta$ , 且x不在 $\Gamma$ 的任何公式中自由出现,则 $\Gamma$ ,  $\exists x \alpha \vdash_{N_{\mathfrak{L}}} \exists x \beta$ .
- 13. 证明: 若 $\Gamma$ ,  $\alpha \vdash_{N_{\mathfrak{L}}} \beta$ , 且x不在 $\Gamma \cup \{\beta\}$ 的任何公式中自由出现,则 $\Gamma$ , ∃ $x\alpha \vdash_{N_{\mathfrak{L}}} \forall x\beta$ .
- 14. (2),(4),(5)

6. 7=7(x/A)(A/X)

- (1) (1) HU2(MU) + HU2(MU) (E)
  - @ 498(XM) F 3 (x/A)(MX) (A-)
  - (3) 2 (X/4) (1/X)+2
  - 4) HH (NY) HJ (Tr)
- (E) YYX (A+)
- (F) ① A X S ( X A D ( A X S ( X A D ) ( 4 )
  - (野菜サイメン(x/y)(u/x) (紫菜注)
  - 3 Ax9 + A39(A)
- 7. の ガスカ ココスマス(で近)
  - (JUS) LYNIELEN MIXELEN (S)
  - B =X" H" YX" (EVE) (P)
  - (BiE)
  - BAX72 HAX2(教徒)
- (3) PLY LY LINE (1)

9. (2)

Odab H7(2-373) (EIE)

(哲美語) (Pred XEH (BNO)XE ②

3 7=X6AB)H 7=X7627B) (ELE)@

(3) (3, (20, 18) H (20, 18) (EIE)

C AND DIA WAR SEED

(b) Ax12-218) H J→Ax, B (GIE)

BBS(7T) 878/CS H (9/S)XE" (D

Quisis) (8 xA (9) L H(8 VBXE Q

(B) 7(2→ 4×7β) H 2/17 4x7β (EiE)

(9) IXBHTUXTB(PUE)

@ 21 TXT HONEXP ( STEED D)

(1) =1x (2/B) H 2/3×B (Tr) @ 66

(4) O278H 220 (20II)

①红宝铁台) (ge-&T)XEH(qV&XE 全

(JUS) AXE GR H (GGK)XE (S)

@ 2->3xBH 2V3xB(EiE)

@ DQ (T) (QVG) XEHQX EV C)

12.

: Γ, α-β

(+E) 9XE-16,7

C-E) 8 XE + 3 XE , 7

t.ärß

13.

(-E) 8-16xE,7

L, 3x8+ AxB(A+)

p.560(p.185)

17. (1), (2), (3)

18. (1), (3)

19. (2),(3)

74

17. (1) Ym F,(X1,16) MY5 F,(X1,16) H Y X5 F, (X3,16) M Y X4 F, (X1,174) H Y X3 X4 (F, (X1,176))

(2) Y KEF (M) -> 3 X, F1 (K)

H Y& f (x1) → 3x4 F1 (x)

H 3/3/4 (f. (x.) 2 F. (/2))

H YX, Y&F, (x, x) → Y& Yx4F, (x, x4)

H3xxxV&x4 (f, (x,x)-)-f,(x,x4))

(& (1) EIXIE (1) SI

H VX33x13x2F1(X11x2)

(3) 3x1 + (x) + 3x2 F1(x)

(IS), F(X) F(X) H JUXEIXY H

19. (2) ∃XIFI(XI) → YXI3&FI (XI/S)

UX, EXI AXEEX (IX) AIXE H

(12, EXIXY 2/E H

13) YMS-FIKINDIN YKEFIKINDI H YX4X2FIK4 KIN YX3FI(XIXS) H 2X5 Y46X3(FI(4,12)1 FIKINDI)