

Worksheet Exercise 4.4.A.

Name _____

Practicing the Rules

Class _____ Date _____

Part A. For each of the following inferences, determine whether the conclusion may be derived by the rule listed. Answer YES or NO in the blanks provided. (Premiss "Ma" is listed only to make the name "a" already present in the deduction.)

-
- | | | | |
|---|---|---|---|
| 1. Ma
($\forall x$)(Fx V Gx)

∴ Fb V Gb

U.I. _____ | 2. Ma
($\forall x$)(Fx V Gx)

∴ Fa V Ga

U.I. _____ | 3. Ma
($\forall x$)(Fx V Gx)

∴ Fa V Gb

U.I. _____ | 4. Ma
($\forall x$)Fx V ($\forall x$)Gx

∴ Fa V ($\forall x$)Gx

U.I. _____ |
|---|---|---|---|
-

- | | | | |
|---|---|---|---|
| 5. Ma
Fb & Gb

∴ ($\exists x$)(Fx & Gx)

E.G. _____ | 6. Ma
Fa & Ga

∴ ($\exists x$)(Fx & Gx)

E.G. _____ | 7. Ma
Fa & Gb

∴ ($\exists x$)(Fx & Gx)

E.G. _____ | 8. Ma
~Fb

∴ ~($\exists x$)Fx

E.G. _____ |
|---|---|---|---|
-

- | | | | |
|---|---|---|---|
| 9. Ma
($\exists x$)Fx

∴ Fb

E.I. _____ | 10. Ma
($\exists x$)Fx

∴ select name a
∴ Fa

E.I. _____ | 11. Ma
($\exists x$)Fx

∴ select name b
∴ Fb

E.I. _____ | 12. Ma
($\exists x$)Fx

∴ select name b
∴ Fc

E.I. _____ |
|---|---|---|---|
-

- | | | | |
|---|---|---|---|
| 13. Ma
~($\exists x$)Fx

∴ ($\forall x$)~Fx

Q.N. _____ | 14. Ma
~($\forall x$)Fx

∴ ($\forall x$)~Fx

Q.N. _____ | 15. Ma
($\exists x$)~Fx

∴ ~($\forall x$)Fx

Q.N. _____ | 16. Ma
~($\exists x$)~Fx

∴ ($\forall x$)~~Fx

Q.N. _____ |
|---|---|---|---|
-

- | | | | |
|--|--|--|--|
| 17. Ma
Fa

∴ ($\forall x$)Fx

U.G. _____ | 18. Fa & Ga
[select name a
Fa Simp

∴ ($\forall x$)Fx

U.G. _____ | 19. Fa & Ga
[select name b
Fa Simp

∴ ($\forall x$)Fx

U.G. _____ | 20. Ma
($\forall x$)(Fx & Gx)
[select name b
Fb & Gb U.I.
[Fb Simp

∴ ($\forall x$)Fx

U.G. _____ |
|--|--|--|--|
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