

**Worksheet Exercise 2.7.A.**

Practicing the rules

Name \_\_\_\_\_

Class \_\_\_\_\_ Date \_\_\_\_\_

**Part A.** For each of the following inferences, determine whether the conclusion follows from the premiss by the rule listed. Answer YES or NO in the blanks provided.

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| 1. $\sim J \supset (A \vee S)$<br>$\sim J$<br><hr/> $\therefore (A \vee S)$<br><br>M.P. <u>YES</u> | 2. $(A \vee S) \supset \sim J$<br>$\sim J$<br><hr/> $\therefore (A \vee S)$<br><br>M.P. _____ | 3. $(A \vee S) \supset J$<br>$\sim J$<br><hr/> $\therefore \sim(A \vee S)$<br><br>M.T. _____ | 4. $J \supset (A \vee S)$<br>$\sim J$<br><hr/> $\therefore \sim(A \vee S)$<br><br>M.T. _____ |
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| 5. $A \supset \sim C$<br>$\sim B \ \& \ \sim C$<br><hr/> $\therefore \sim C$<br><br>Simp _____ | 6. $T \vee \sim E$<br>$\sim T$<br><hr/> $\therefore \sim E$<br><br>Disj Syll _____ | 7. $H \vee \sim I$<br>$H \supset \sim P$<br>$\sim A \supset \sim I$<br><hr/> $\therefore \sim P \vee \sim A$<br>Dilem. _____ | 8. $\sim B \supset \sim C$<br>$\sim B \supset A$<br><hr/> $\therefore \sim C \supset A$<br><br>Hyp Syll _____ |
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| 9. $(T \ \& \ B) \vee \sim E$<br>$\sim(\sim E)$<br><hr/> $\therefore T \ \& \ B$<br><br>Disj Syll _____ | 10. $\sim T \vee \sim E$<br>$\sim T$<br><hr/> $\therefore \sim E$<br><br>Disj Syll _____ | 11. $A \supset Q$<br>$\sim C \equiv B$<br><hr/> $\therefore \sim C \supset B$<br><br>Bicond _____ | 12. $\sim E$<br><hr/> $\therefore \sim E \vee (M \ \& \ S)$<br><br>Disj Add _____ |
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| 13. $B \supset \sim C$<br>$\sim A \supset B$<br><hr/> $\therefore \sim A \supset \sim C$<br><br>Hyp Syll _____ | 14. $H \vee \sim I$<br>$H \supset \sim P$<br>$\sim I \supset \sim J$<br><hr/> $\therefore \sim P \vee \sim J$<br>Dilem. _____ | 15. $L \supset (B \ \& \ E)$<br>$L \supset \sim(B \ \& \ E)$<br><hr/> $\therefore \sim L$<br><br>R.A.A. _____ | 16. $(B \ \& \ E) \supset \sim C$<br>$\sim A \supset (B \ \& \ E)$<br><hr/> $\therefore \sim A \supset \sim C$<br><br>Hyp Syll _____ |
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| 17. $\sim(A \vee B) \supset C$<br><hr/> $\therefore (A \vee B) \supset \sim C$<br><br>Contrap _____ | 18. $\sim(A \vee B) \supset C$<br><hr/> $\therefore \sim C \supset (A \vee B)$<br><br>Contrap _____ | 19. $\sim(A \vee B)$<br><hr/> $\therefore \sim A \vee \sim B$<br><br>DeMorg _____ | 20. $\sim(S \ \& \ E)$<br><hr/> $\therefore \sim S \vee \sim E$<br><br>DeMorg _____ |
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| 21. $\sim A \vee \sim B$<br><hr/> $\therefore A \supset \sim B$<br><br>Cond _____ | 22. $(Q \ \& \ P) \supset A$<br><hr/> $\therefore (\sim Q \ \& \ \sim P) \vee A$<br><br>Cond _____ | 23. $L \supset ((B \ \& \ E) \ \& \ A)$<br><hr/> $\therefore L \supset (B \ \& \ E)$<br><br>D.Thens _____ | 24. $L \supset (B \ \& \ E)$<br><hr/> $\therefore L \supset (\sim B \vee L)$<br><br>Taut _____ |
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