

Worksheet Exercise 2.7.B.

Practicing the rules

Name _____

Class _____ Date _____

Part B. Each of the following inferences uses one of the allowed rules. In each case, supply the abbreviated name of the rule that was used.

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| 1. $\sim(A \vee \sim B)$

$\therefore \sim A \ \& \ \sim(\sim B)$

rule: _____ | 2. $(A \vee S) \supset J$
$\sim J$

$\therefore \sim(A \vee S)$

rule: _____ | 3. $\sim(A \vee B) \supset C$

$\therefore \sim C \supset (A \vee B)$

rule: _____ | 4. $(A \vee S) \supset \sim J$
$(A \vee S)$

$\therefore \sim J$

rule: _____ |
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| 5. $H \vee \sim I$
$H \supset \sim P$
$\sim I \supset \sim J$

$\therefore \sim P \vee \sim J$
rule: _____ | 6. $J \supset (A \vee S)$
$\sim(A \vee S)$

$\therefore \sim J$
rule: _____ | 7. $\sim S \ \& \ \sim E$

$\therefore \sim(S \vee E)$
rule: _____ | 8. $T \vee \sim E$
$\sim T$

$\therefore \sim E$
rule: _____ |
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| 9. $\sim H \supset Q$
$\sim H \vee I$
$I \supset M$

$\therefore Q \vee M$
rule: _____ | 10. $(T \ \& \ B) \vee \sim E$
$\sim(\sim E)$

$\therefore T \ \& \ B$
rule: _____ | 11. $\sim T \vee \sim E$
$\sim T$

$\therefore \sim T \ \& \ (\sim T \vee \sim E)$
rule: _____ | 12. $A \supset B$
$\sim C \equiv B$

$\therefore \sim C \supset B$
rule: _____ |
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| 13. $L \supset (B \ \& \ E)$

$\therefore (B \ \& \ E) \supset B$

rule: _____ | 14. $\sim E$

$\therefore \sim E \vee (M \ \& \ S)$

rule: _____ | 15. $Q \supset ((B \ \& \ E) \ \& \ A)$

$\therefore Q \supset (B \ \& \ E)$

rule: _____ | 16. $B \supset \sim C$
$\sim A \supset B$

$\therefore \sim A \supset \sim C$

rule: _____ |
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| 17. $\sim J \supset (A \ \& \ S)$
$\sim J$

$\therefore (A \ \& \ S)$

rule: _____ | 18. $\sim(Q \ \& \ P) \vee A$

$\therefore (Q \ \& \ P) \supset A$

rule: _____ | 19. $A \supset \sim C$
$\sim B \ \& \ \sim C$

$\therefore \sim C$

rule: _____ | 20. $(B \ \& \ E) \supset \sim C$
$\sim A \supset (B \ \& \ E)$

$\therefore \sim A \supset \sim C$

rule: _____ |
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| 21. $(A \vee B) \supset C$

$\therefore \sim(A \vee B) \vee C$

rule: _____ | 22. $A \vee \sim B$
D

$\therefore D \ \& \ (A \vee \sim B)$

rule: _____ | 23. $(B \supset \sim C) \ \& \ (\sim B \supset A)$

$\therefore \sim B \supset A$

rule: _____ | 24. $L \supset (\sim B \ \& \ \sim E)$

$\therefore L \supset \sim E$

rule: _____ |
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