

**Worksheet Exercise 3.8.A.**

Name \_\_\_\_\_

Combined Deductions

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

**Part A.** Symbolize the following arguments, using the combined symbolic languages of Propositional Logic and Traditional Logic.

(#1) 1. If everyone likes to sing or dance, then everyone likes to be active. 2. If everyone likes to be active, then it is false that someone is completely lethargic. So, if everyone likes to sing or dance, then no one is completely lethargic.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
So, \_\_\_\_\_

(#2) 1. Some people invent important new theories. 2. All who invent important new theories are famous. 3. If some people are famous, then not all people are undistinguished. So, some people are distinguished.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
So, \_\_\_\_\_

(#3) 1. If all even numbers are non-quintuple reals, then all multiples of four are non-quintuple reals. 2. Some multiples of four are also multiples of five (e.g, the number twenty). 3. But, no non-quintuple reals are multiples of five. So, some even numbers are not non-quintuple reals.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
So, \_\_\_\_\_

(#4) 1. All actions performed out of physical necessity are not morally characterized actions. 2. Some things that people do are actions performed through brainwashing. 3. All actions performed through brainwashing are actions performed out of physical necessity. So, not all things that people do are morally characterized actions.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
So, \_\_\_\_\_

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(#5) 1. Either some physical things are atoms, or it is not the case that some physical things are atoms. 2. If some physical things are atoms, then all material things are made of atoms. 3. If it is not the case that some physical things are atoms, then no material things are made of atoms. So, all material things are made of atoms, or no material things are made of atoms, and consequently, if some material things are made of atoms, then all material things are made of atoms.

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 So, \_\_\_\_\_  
 So, \_\_\_\_\_

(#6) 1. All beings that are perfect cannot be lacking in some feature that would make them greater if they had it than if they did not have it. 2. All beings that are not omnipotent are clearly lacking in some feature that would make them greater if they had it than if they did not have it, as are beings that are not omniscient, as are as beings that are not omnibenevolent, and as are beings that are not eternal. So, all perfect beings must be omnipotent; they must be omniscient; they must be omnibenevolent; and they must be eternal. [Hint: L = beings that lack some feature that would make them greater if they had it than if they did not have it.]

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 \_\_\_\_\_  
 So, \_\_\_\_\_  
 \_\_\_\_\_

(#7) 1. Either some persons have free will, or no persons have free will. 2. If some persons have free will, then some actions are good and some actions are evil. 3. If no persons have free will, then no actions are good and no actions are evil. So, either some actions are evil, or no actions are good.

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 So, \_\_\_\_\_

(#8) 1. Actions that are good are morally characterized actions, and they and only they deserve to be rewarded. 2. Also, actions that are evil are morally characterized actions, and they and only they deserve to be punished. So, actions that are not morally characterized actions do not deserve to be rewarded, nor do they deserve to be punished.

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 So, \_\_\_\_\_