**Translating Propositions**

Translate the following propositions into symbolic form. Be sure to translate atomic sentences as affirmative.

1. If we do not provide adequate education for all of our children, our economy will suffer and the crime rate will skyrocket.
2. Either Justin Beiber or Lady Gaga is the most popular pop star.
3. The South would not have seceded from the Union if and only if the practice of slavery had continued to be sanctioned by the government.
4. Neither hammers nor nails are available at the grocery store, but duct tape is.
5. I will become a great philosopher only if I hone my logic skills.
6. It is not the case that I will marry only if my partner is wealthy, but rather only if my partner is kind.
7. Unless Socrates does all of his homework tonight, he is not going to get an A.
8. If Google is unavailable, then I will use Yahoo but I don’t enjoy it.
9. The United States will release its oil reserves only if Saudi Arabia and Libya increase oil prices
10. If the woodchuck would chuck wood, then we would know exactly how much wood a woodchuck could chuck but the tongue twister would still be hard to say.

**Translating Propositions (Key)**

Translate the following propositions into symbolic form. Be sure to translate atomic sentences as affirmative.

1. If we do not provide adequate education for all of our children, our economy will suffer and the crime rate will skyrocket.

¬E→(S∙C)

1. Either Justin Bieber or Lady Gaga is the most popular pop star.

 J∨L

1. The South would not have seceded from the Union if and only if the practice of slavery had not be banned by the government.

 S↔¬B

1. Neither hammers nor nails are available at the grocery store, but duct tape is.

(¬H∙¬N)∙D

1. I will become a great philosopher only if I hone my logic skills.

 G→L

1. It is not the case that I will marry only if my partner is wealthy, but rather only if my partner is kind.

¬(M→W)∙(M→K)

1. Unless Socrates does all of his homework tonight, he is not going to get an A.

H∨¬A

1. If Google is unavailable, then I will use Yahoo but I don’t enjoy it.

G→(Y∙¬E)

1. If Saudi Arabia and Libya increase oil prices, the United States will release its oil reserves.

(S∙L)→R

1. If the woodchuck would chuck wood, then we would know exactly how much wood a woodchuck could chuck but the tongue twister still wouldn’t be easy to say.

W→(K∙¬T)