Predicate Logic Translation I Handout

I. **Exercises A**. Translate each sentence into predicate logic.

1. Alice is clever.

2. Bobby works hard.

3. Chuck plays tennis regularly.

4. Dan will see Erika on Tuesday at noon in the gym.

II. **Translations with just two terms**

1. All persons are mortal.

2. Some actors are vain.

3. Some gods aren't mortal.

4. No frogs are people.

III. **Exercises B**. Translate each sentence into predicate logic.

1. All roads lead to Rome. (Rx, Lx)

2. Beasts eat their young. (Bx, Ex)

3. Everything worthwhile requires effort. (Wx, Rx)

4. Some jellybeans are black. (Jx, Bx)

5. Some jellybeans are not black.

IV. **Translations with more than two predicates**

1. Some wooden desks are uncomfortable.

2. All wooden desks are uncomfortable.

3. Many applicants are untrained or inexperienced.

4. All applicants are untrained or inexperienced.

5. Only men have been presidents.

6. Only famous men have been presidents.

7. Only intelligent students understand Kant.

V. **Translations with more than one quantifier**

1. If anything is damaged, then everyone in the house complains.

2. Either all the gears are broken, or a cylinder is missing.

IV. **Exercises C**. Translate each sentence into predicate logic.

1. Some jellybeans are tasty. (Jx, Tx)

2. Some black jellybeans are tasty. (Jx, Bx, Tx)

3. No green jellybeans are tasty. (Gx, Jx, Tx)

4. Some politicians are wealthy and educated. (Px, Wx, Ex)

5. All wealthy politicians are electable. (Wx, Px, Ex)

6. If all jellybeans are black then no jellybeans are red. (Jx, Bx, Rx)

7. If everything is physical then there are no ghosts. (Px, Gx)

8. Some one walked the dog, but no one washed the dishes. (Px, Wx, Dx)

9. Everyone can go home only if all the work is done. (Px, Gx, Wx, Dx)