Name_____

In this exercise you will be given two premises and several conclusions. You may assume that the premises are true. Try decide if the conclusions that follow the premises are valid or invalid. After you decide if the conclusions can be supported by the premises, circle the correct answer.

**All bluegill are fish.**
**All fish live in water.**
| | | |
|---|---|---|
| 1. Therefore, all fish have gills. | valid | invalid |
| 2. Therefore, all fish are bluegills. | valid | invalid |
| 3. Therefore, some bluegill have fins. | valid | invalid |
| 4. Therefore, all bluegill live in water. | valid | invalid |

**All chipmunks are animals.**
**Animals are not plants**
| | | |
|---|---|---|
| 5. Therefore, no chipmunks are plants. | valid | invalid |
| 6. Therefore, some chipmunks are plants. | valid | invalid |
| 7. Therefore, no chipmunks have leaves. | valid | invalid |
| 8. Therefore, some plants are chipmunks. | valid | invalid |

**All horses are fast.**
**All palominos are horses**
| | | |
|---|---|---|
| 9. Therefore, some palominos are pretty. | valid | invalid |
| 10. Therefore, no palominos are fast. | valid | invalid |
| 11. Therefore, all palominos are fast. | valid | invalid |

**All cats are cunning.**
**All Cheshires are cats.**
| | | |
|---|---|---|
| 12. Therefore, all Cheshires are cunning. | valid | invalid |
| 13. Therefore, all cunning animals are cats. | valid | invalid |
| 14. Therefore, all cunning animals are Cheshires. | valid | invalid |