**Daily Exercises**

**Exercise 1.2**

*From page 13*

12. Some fools are greedy.  
Some fools are lecherous.  
∴ There are some fools who are both lecherous and greedy.

That is valid, because if some fools are greedy or lecherous, that it could mean that there’s a small portion that could be both or any.

This is invalid. Some rocks are square, some are round, does this mean that some are both square and round?

**Exercise 2.2.1**

*From page 27*

8 If the peasants revolt and the queen hesitates, the revolution will succeed.

P&Q∴R

good

**Exercise 3.2.1**

*From page 45*

8. ~Q ├ Q → P

|  |  |
| --- | --- |
| P | Q |
| T | T |
| T | F |
| F | T |
| F | F |

|  |  |  |  |
| --- | --- | --- | --- |
| ~Q | Q | → | P |
| F | T | T | T |
| T | F | T | T |
| F | T | F | F |
| T | F | T | F |

This is contingent and consistent, because it has at least one true in the column under the main operator.

**Eercise 4.2**

*From page 68*

1 P → Q, Q → R, P ├ R

1.- P → Q A ├ R

2.- Q → R A

3- P A

4.- Q 1,3 →E

5. R 2,4 →E

Good

3 P & Q, P → R ├ R

1.- P & Q A ├ R

2.- P → R A

3.- P 1,3 &E

4.- Q 1,4 &E

5. R 2,5 →E

Good, however line 4 is unnecessary, but this does not affect the proof, it just makes more work for you.