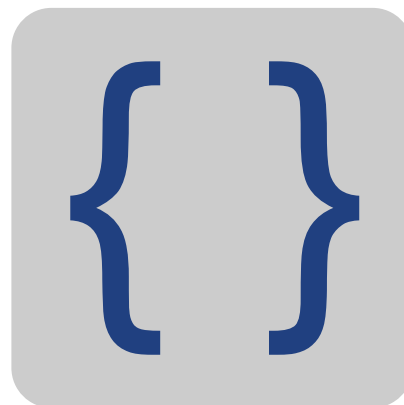## About

Homework is due one week after being assigned. It should be ready to turn-in at the beginning of lecture.

If you cannot turn-in your work in class, then you may submit your homework at Riverside Hall 3018 instead, but you must time-stamp and write "Cook CSc 28" across the top of your submission.

Set Notation

For the following set definitions, list all the items in the set.

1. A = { x | x is a vowel }

2. B = { x | x ∈ Z and 20 ≤ x < 30 }

3. C = { x | x is a letter in "Fire Nation" }

4. D = { 4x | x ∈ N and x < 6 }

Set Operators

Given the following sets:

U   =   { 1, 2, 3, … 9 }
A   =   { 2, 4, 6, 8 }
B   =   { 3, 6, 9 }
C   =   { 1, 3, 5, 7, 9 }

Find the following:

1. A ∩ B

2. B ∩ C

3. A ∪ C

4. A'

5. C – B

6. (A ∪ C) – B

Venn Diagrams

A survey was taken on **30** racers being sold at Lucky Luigi's Used Racers. Three different racer options were counted: power windows, Bluetooth stereos, and built-in navigation. The following information was gathered

- 17 have power windows (P)
- 21 have Bluetooth (B)
- 15 have navigation (N)

Also…

- 7 have N and P
- 12 have B and N
- 11 have P and B
- 5 have all three options

Use a Venn Diagram to figure out the following:

1. How many only have P
2. How many only have N
3. How many only have B
4. How many have B and P, but not N
5. How many have N and B, but not P
6. Only one of the options
7. None of these options