

# Math 1015

## Homework #1

# 1a, 2b, 3, 4

1a

Me	Friend 1	Friend 2	Friend 3	Friend 4
Snip Doggy Dog	Ruff Cut	Waggies	Ruff Cut	Woof
Woof	Woof	Snip Doggy Dog	Snip Doggy Dog	Snip Doggy Dog
Waggies	Waggies	Woof	Waggies	Ruff Cut
Ruff Cut	Snip Doggy Dog	Ruff Cut	Woof	Waggies

Plumby: Snip: 1  
 Ruff: 2  
 Waggies: 1  
 Woof: 1

Ruff Cut wins!

2b

22%	23%	15%	29%	7%	4%
D	D	H	H	J	J
H	J	D	J	H	D
J	H	J	D	D	H

Round 1

$$D: 22 + 23 = 45$$

$$H: 15 + 29 = 44$$

$$J: 7 + 4 = 11$$

eliminate J.

Round 2

22	23	15	29	7	4
D	D	H	H	H	D
H	H	D	D	D	H

$$D: 22 + 23 + 4 = 49$$

$$H: 15 + 29 + 7 = 51$$

H wins!

#3 Many possible answers.

Here's mine:

<u>4</u>	<u>3</u>	<u>2</u>
A	B	C
B	C	B
C	A	A

Plurality: A wins.

RCV: eliminate C, then B wins.

#4

<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
A	B	C	D
B	C	D	A
C	D	A	B
D	A	B	C