STSCI/INFO/ILRST 3900: Causal Inference

Discussion 4- Class Assignment

1. Fill in the blanks such that **exchangeability** holds

2. Fill in the observed outcome (Y) such that **consistency** holds

3. Calculate the quantities at the bottom (without simplifying)

<u>Note:</u>

$$E[Y^{a=1}] \overset{\text{exchangeability}}{=} E[Y^{a=1}|A=1] \overset{\text{consistency}}{=} E[Y|A=1]$$

	i	$Y^{a=0}$	$Y^{a=1}$	A	Y
1	Rheia	0	1	0	
2	Kronos	1	0	1	
3	Demeter	0	0	0	
4	Hades	0	0	0	
5	Hestia	0	0	1	
6	Poseidon	1	0	0	
7	Hera	0	0	1	
8	Zeus	0	1	1	
9	Artemis	1	1	0	
10	Apollo	1	0	0	
11	Leto	0	1		
12	Ares	1	1		
13	Athena	1	1	0	
14	Hephaestus	0	0	1	
15	Aphrodite	0	0	1	
16	Polyphemus	0	1	1	
17	Persephone	1	1	1	
18	Hermes	1	0	1	
19	Hebe	1	1	1	
20	Dionysus	1	1	1	

- $E[Y^{a=1}] =$

- $E[Y^{a=1}|A=1] =$

- $E[Y|A=1] =$

- $E[Y^{a=0}] =$

- $E[Y^{a=0}|A=0] =$

- $E[Y|A=0] =$