Answer keys to selected questions of Lab #7

10)

no; many different combinations of inclination/mass give same curve.

11)

can give lower limit to mass based on assumed 90 degree inclination.

12)

part 3) irrelevant if orbit is circular.

13)

yes

14)

No/Hard to say. The measurements were barely above noise.

15)

Very unlikely.

16)

Planet Mass (in Mjup)	Semimajor axis (in AU)	Amplitude (in m/s)	System Period (in days)	Detectable? (Y, N, or M)	Undetectable Reason (A or P)
0.1	**0.1**	**8.9**	**11**	**Y**	
1.0	0.1	92.3	11.5	Y	
0.1	1.0	2.9	365	M or N	(P)
1.0	1.0	28.5	364	Y	
5.0	1.0	142.5	364	Y	
0.1	5.0	1.25	4080	N	A or P
1.0	5.0	13	4080	N	P
5.0	5.0	63.4	4070	N	P
1.0	10.0	9.1	11,500	N	P
5.0	**10.0**	**45**	**11500**	**N**	**P**

17) Jovian/Large planets at close distances

18)

	Depth of Eclipse	Duration of Eclipse
Radius of planet	I	I
Semimajor axis	S	I
Mass of star	D	I
Inclination of view	(D)	D

21)

close to star = lots of heat = hot gas/atmosphere expands = makes planet look bigger. Note that a plant with block same amount of lights from the star, no matter the distance.