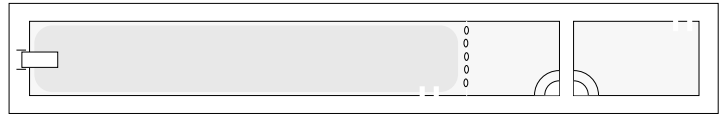


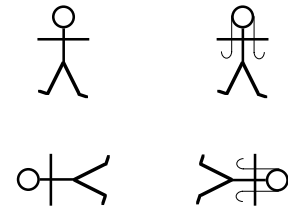
PHYZ SPRINGBOARD:

THIS WAY & THAT WAY IV

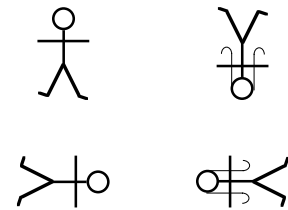
ROTATION



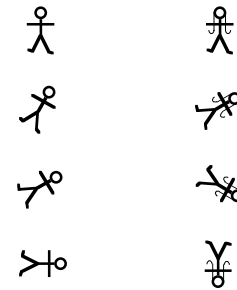
1. Both little people in the diagram to the right have rotated $1/4$ revolution. How can we distinguish the *angular displacement* (change in orientation) of the dude from that of the dudette? For example, we cannot say each had an angular displacement of " $1/4$ revolution," since that would suggest they moved the same way.



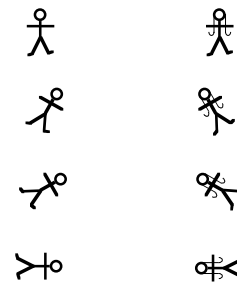
2. Consider the dude and dudette to the right. Who had the larger displacement, or did they undergo the same displacement? Justify your answer.



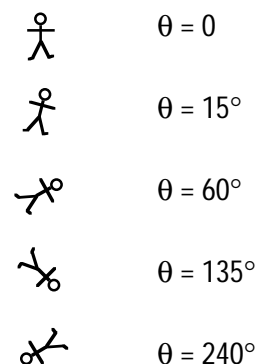
3. How would you characterize the difference between the motion of the dude and the dudette shown in the sequential images taken at equal intervals and shown to the right?



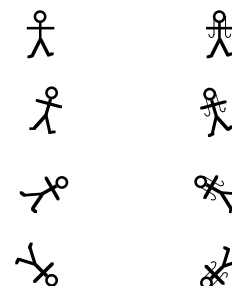
4. How would you characterize the difference between the motion of the dude and the dudette shown in the sequential images taken at equal intervals and shown to the right?



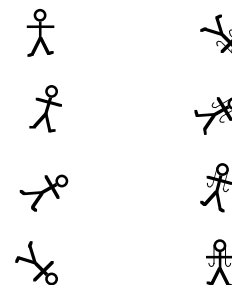
5. How would you characterize the motion of the dude shown in the sequential images taken at equal intervals and shown to the right?



6. How would you characterize the difference between the motion of the dude and the dudette shown in the sequential images taken at equal intervals and shown to the right?



7. a. How would you characterize the difference between the motion of the dude and the dudette shown in the sequential images taken at equal intervals (1s) and shown to the right?



b. How would you characterize the **similarity** of the motion of the dude and the dudette shown in the sequential images taken at equal intervals and shown to the right? If you're not sure, try completing the tables below: one for the dude and one for the dudette.

Clock t (s)	Rd. Position	Velocity	CR. mid t (s)	Acc.
0			0.5	
1			1.5	
2			2.5	
3				

Clock t (s)	Rd. Position	Velocity	CR. mid t (s)	Acc.
0			2.5	
5			1.5	
10			12.5	
15				