***1. Please enter your email address:**

***2. Open another browser window and go to https://vimeo.com/44021198 to view a video explaining the task (password: physics).**

Initial in the box below to confirm that you watched the entire video before proceeding.
***If for any reason you were unable to view the video, please make a note in the comments below and proceed.**

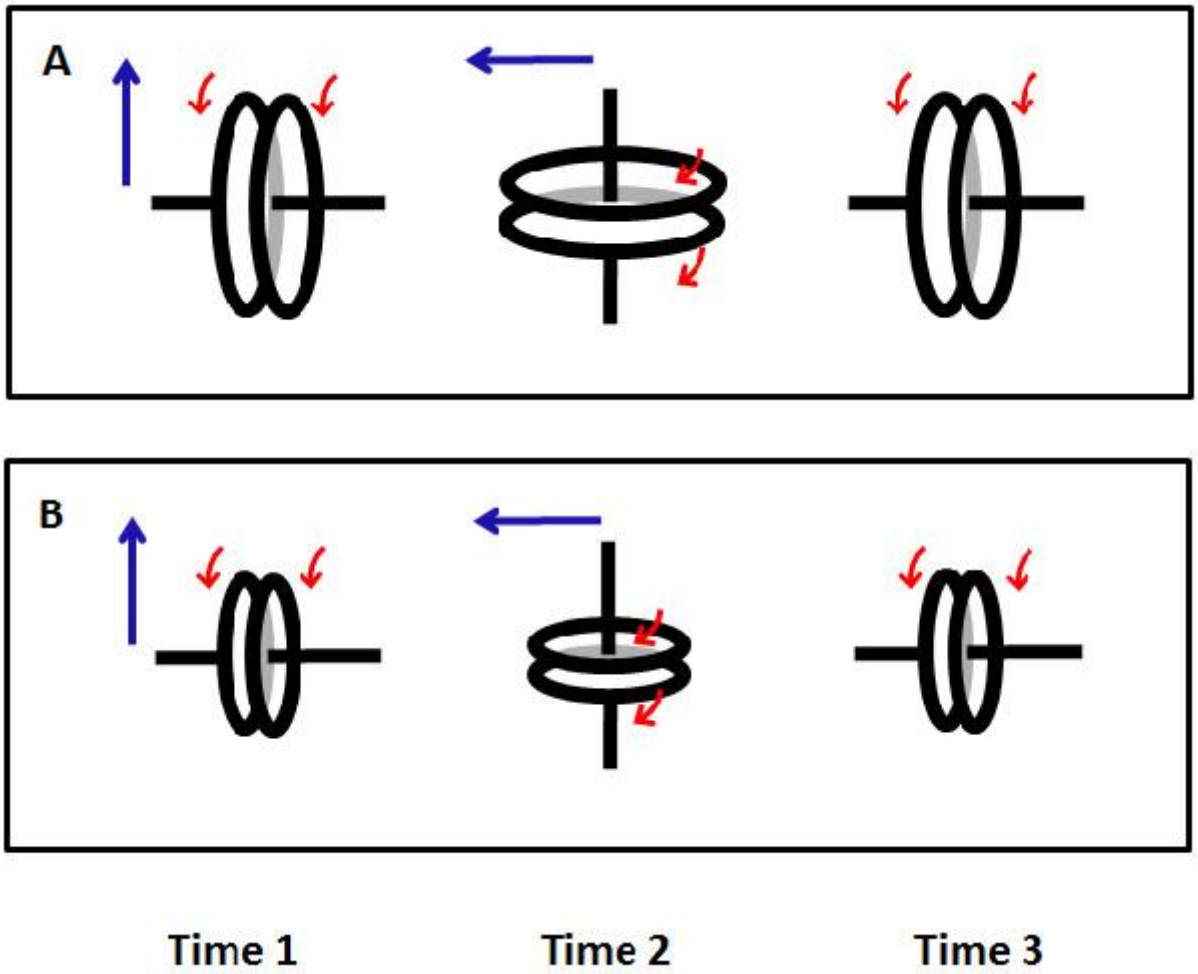
During this study you will be asked to compare diagrams of physical systems. You should have already watched a brief video explaining how to interpret the diagrams you will see.

For each of the following diagrams, you will compare the magnitude of resistive force needed to tilt the axle in sequence A versus sequence B.

---Choose A if a person performing sequence A would experience more resistive force.

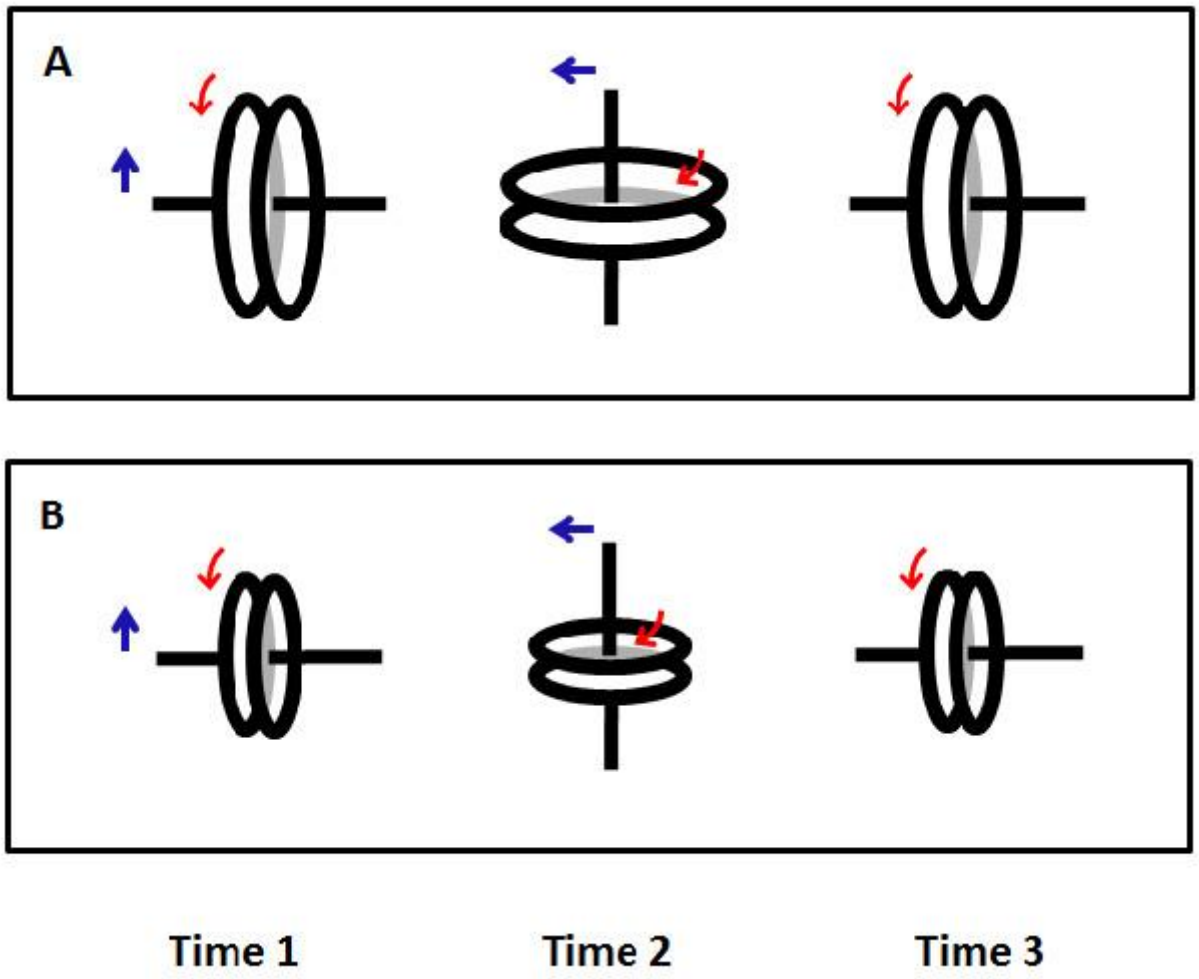
---Choose SAME if people performing sequences A & B would experience equal resistive force.

---Choose B if a person performing sequence B would experience more resistive force.



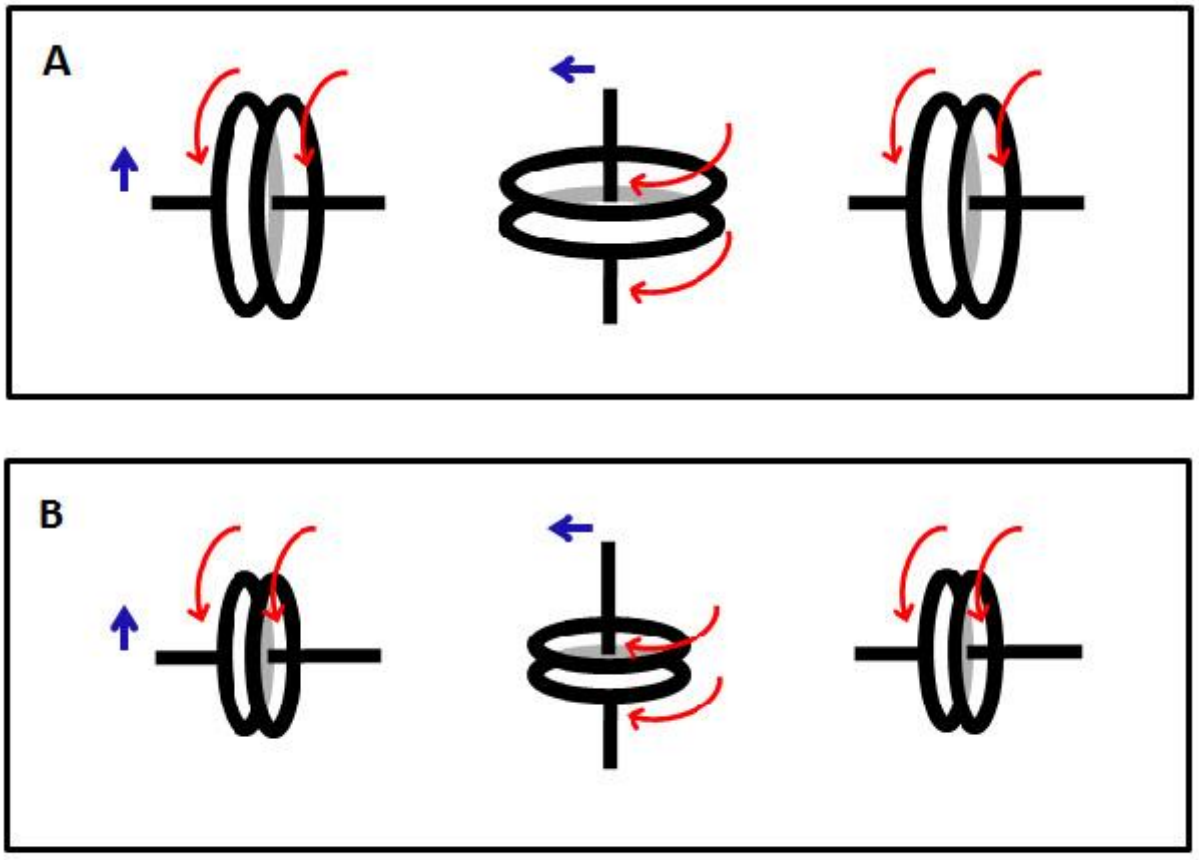
***3. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



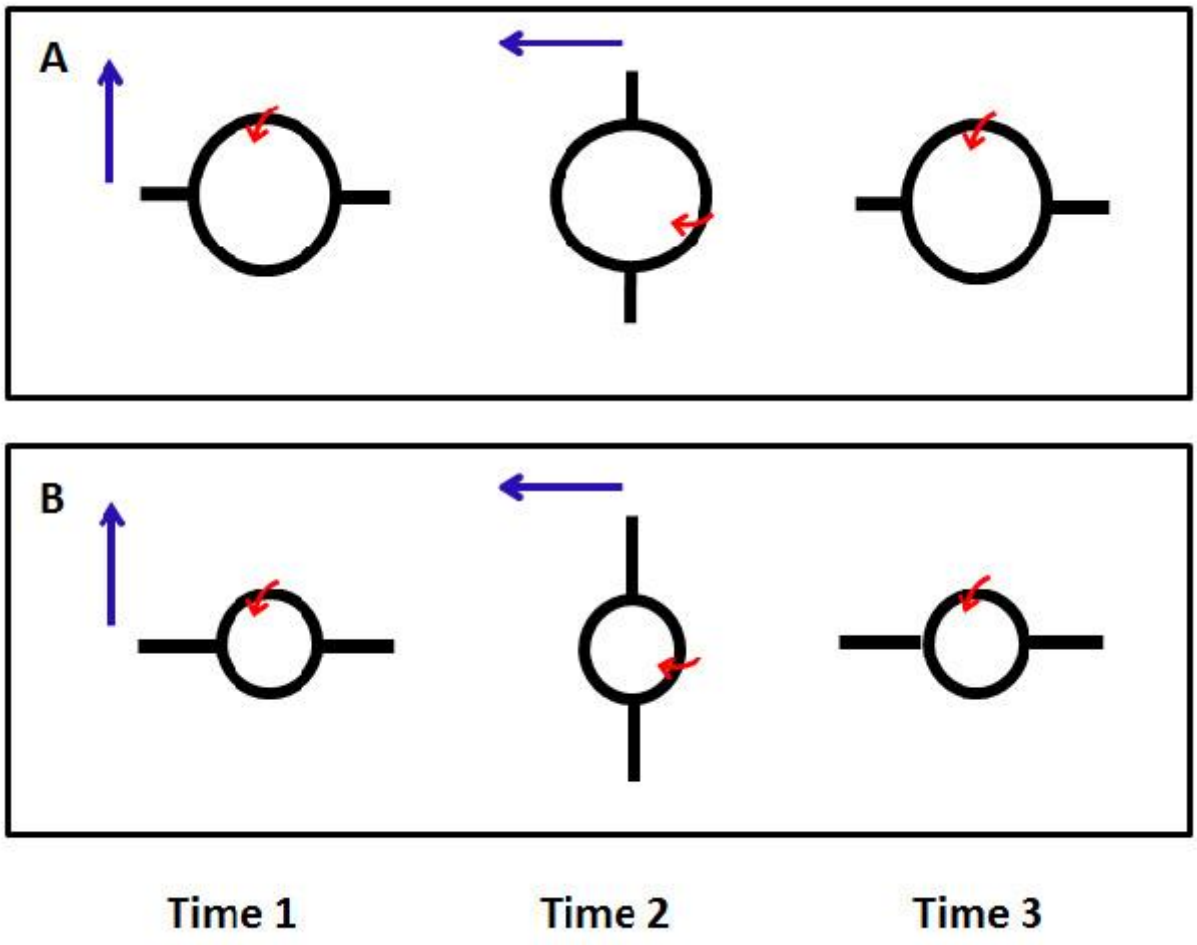
***4. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



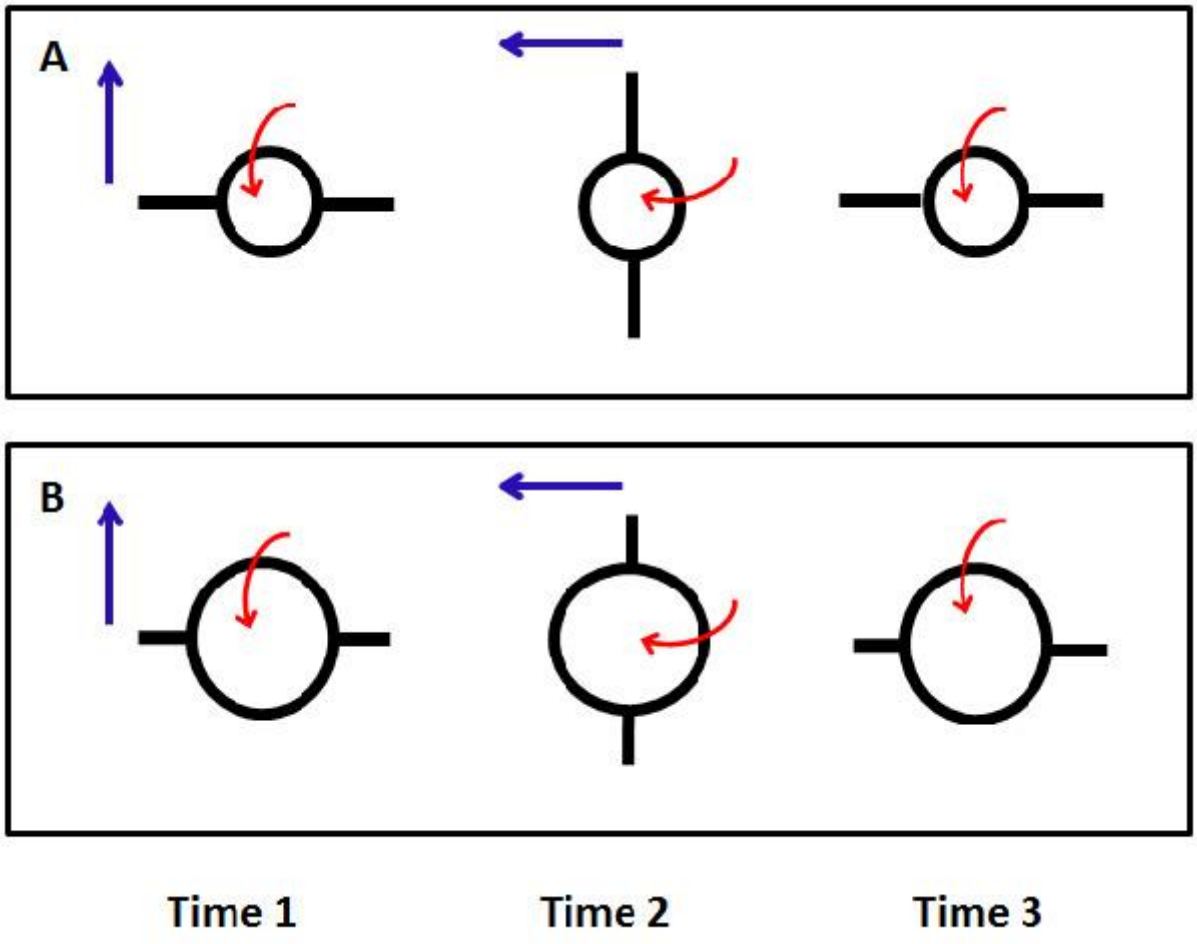
***5. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



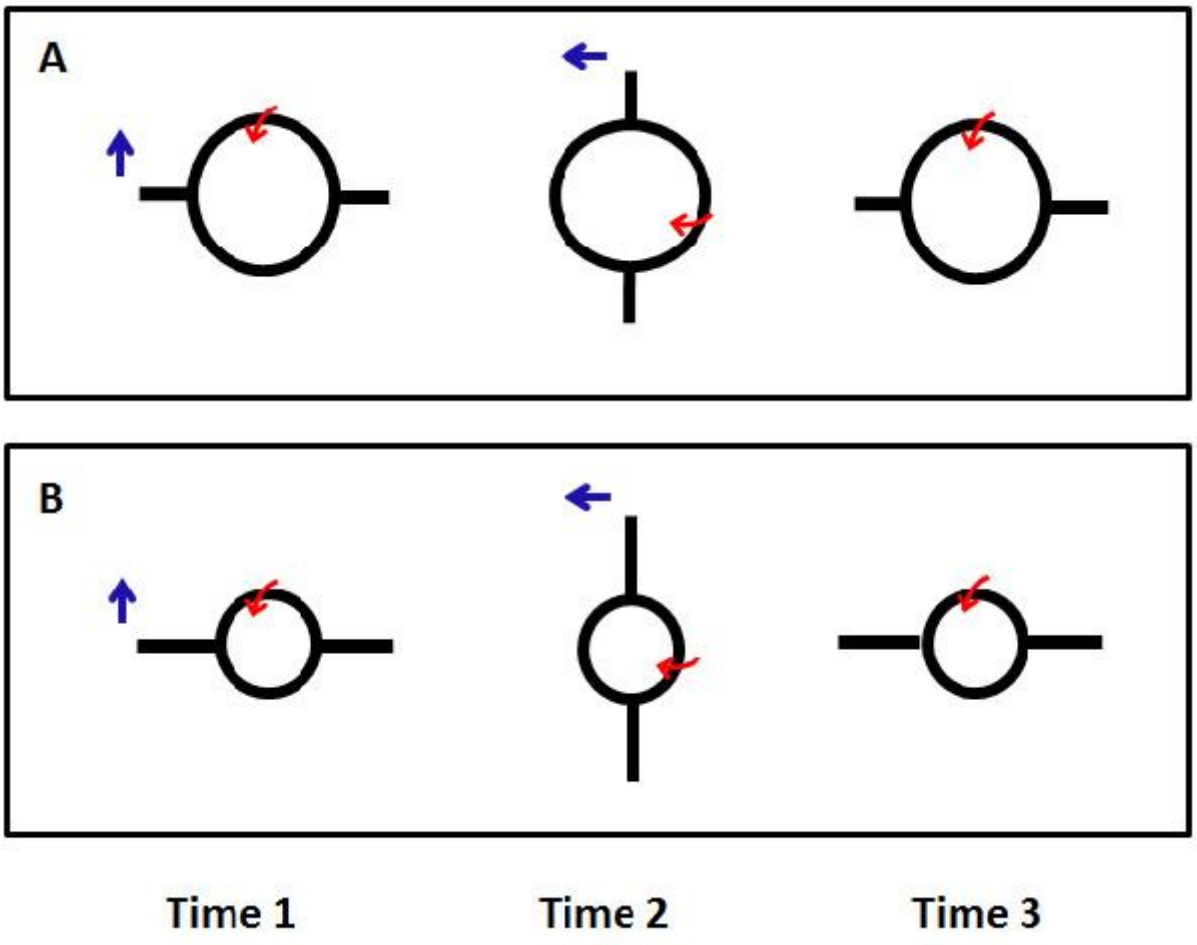
***6. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



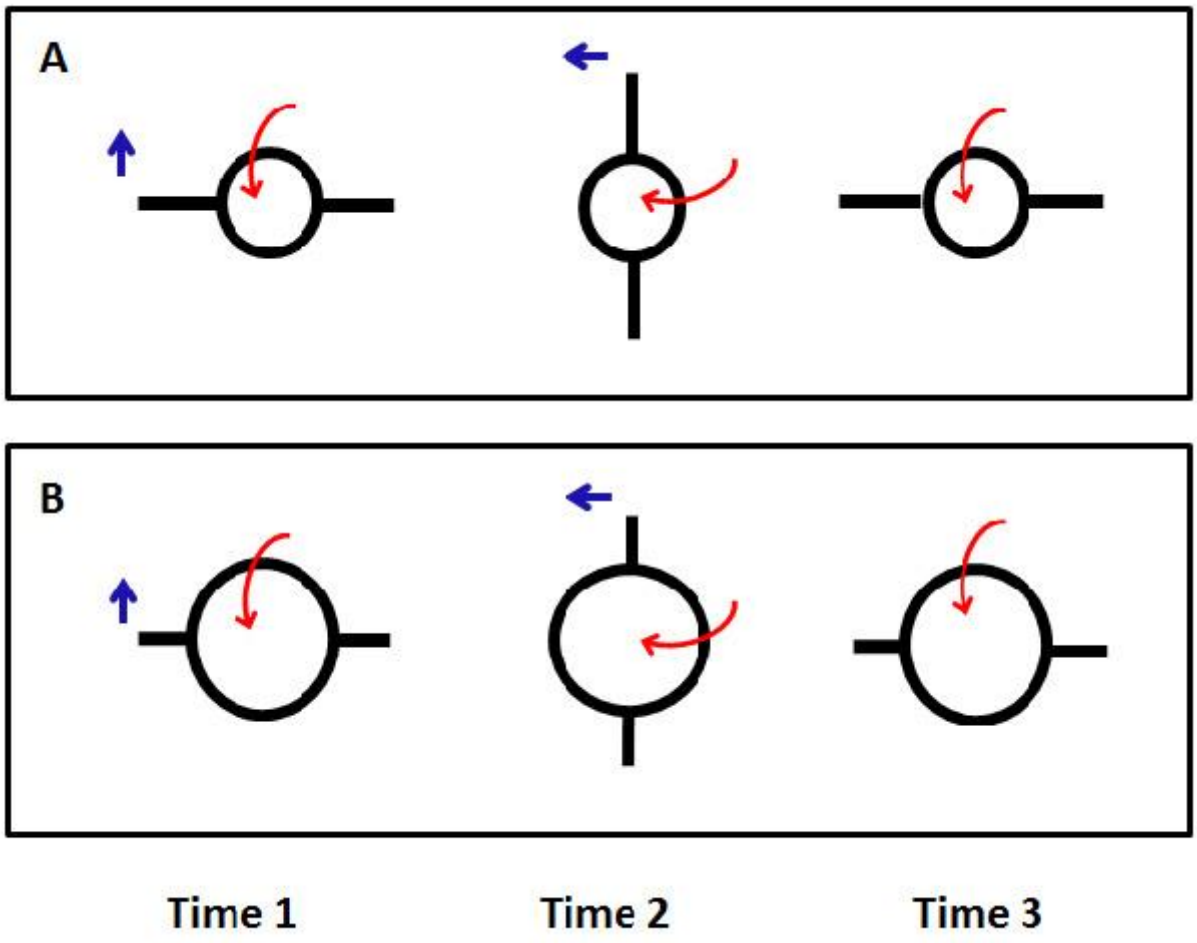
***7. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



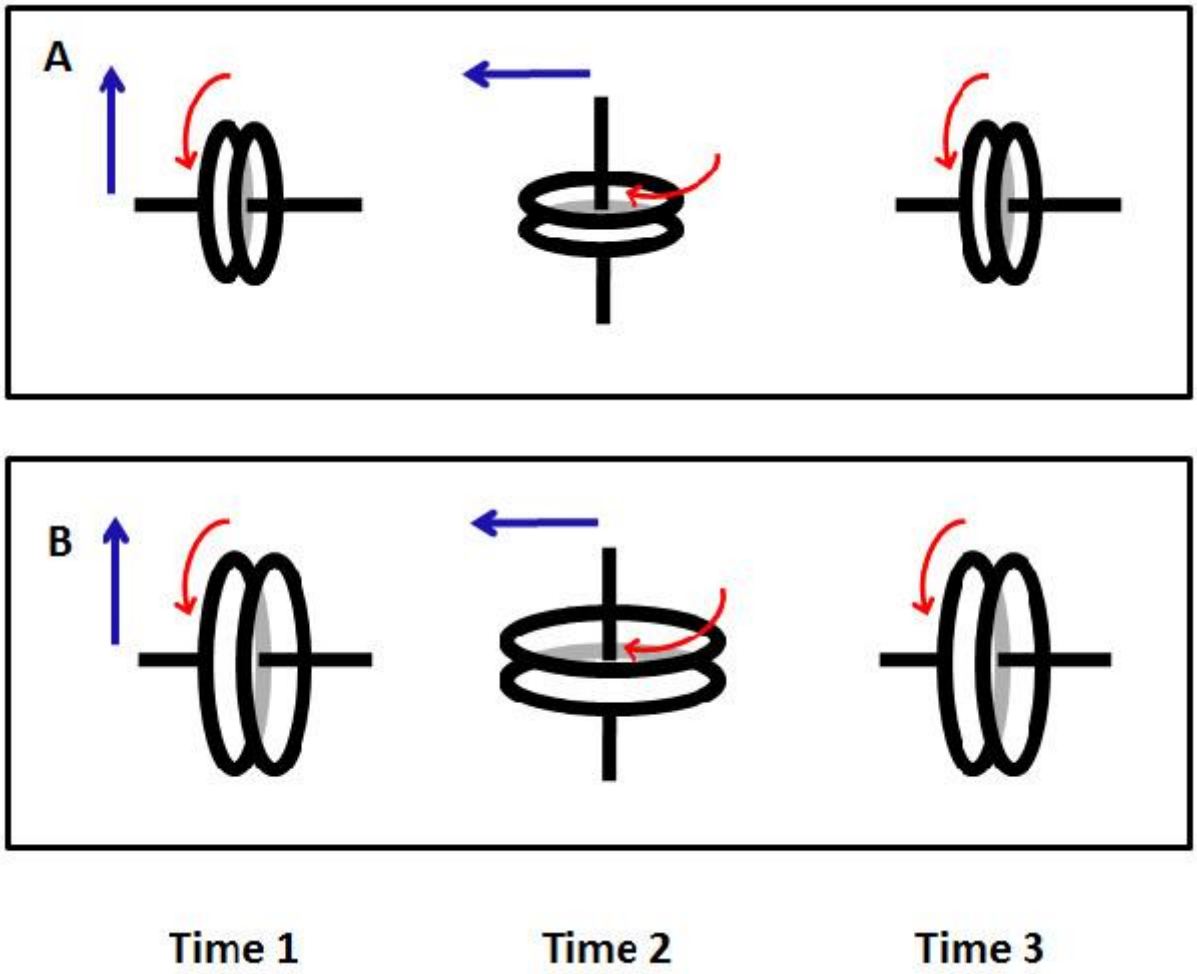
***8. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



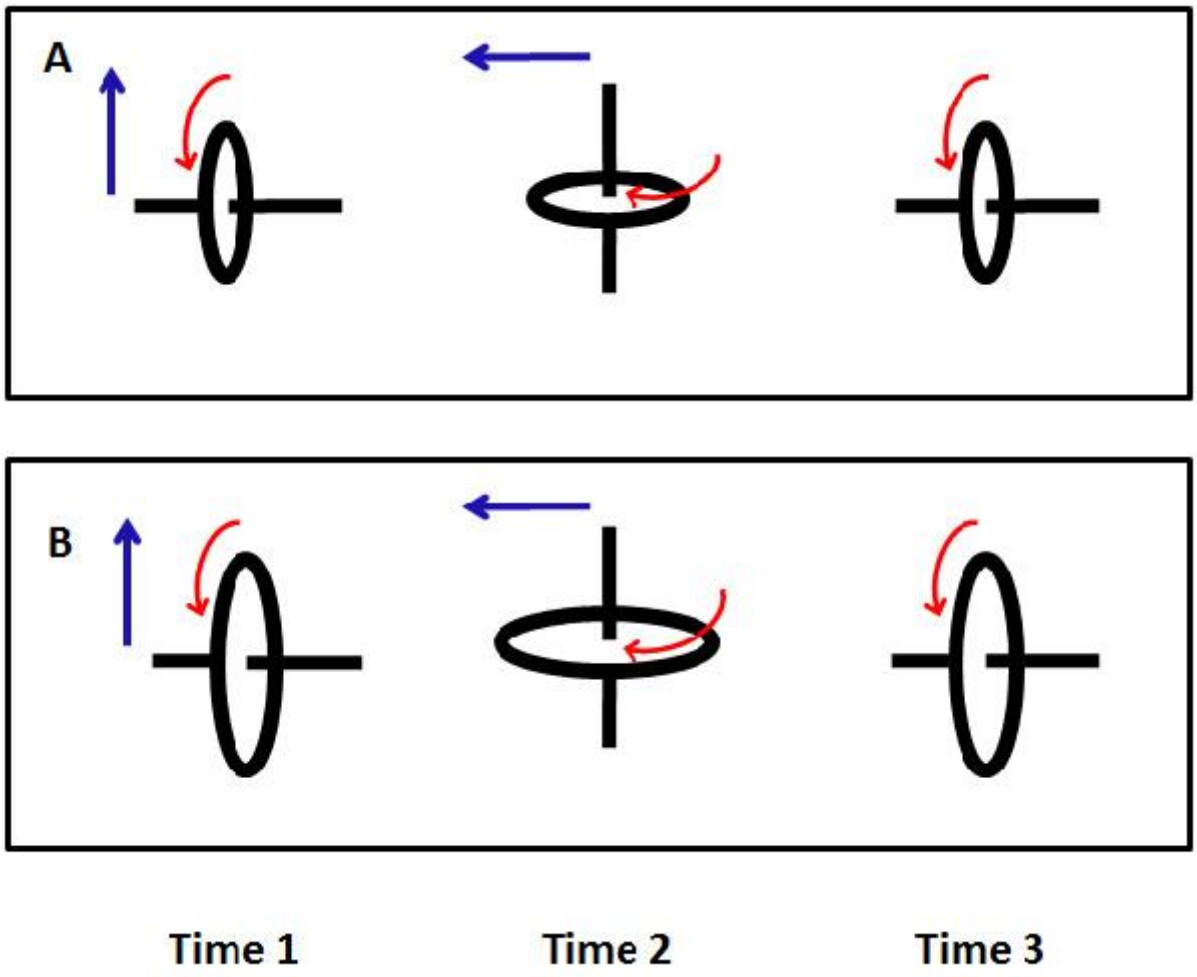
***9. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



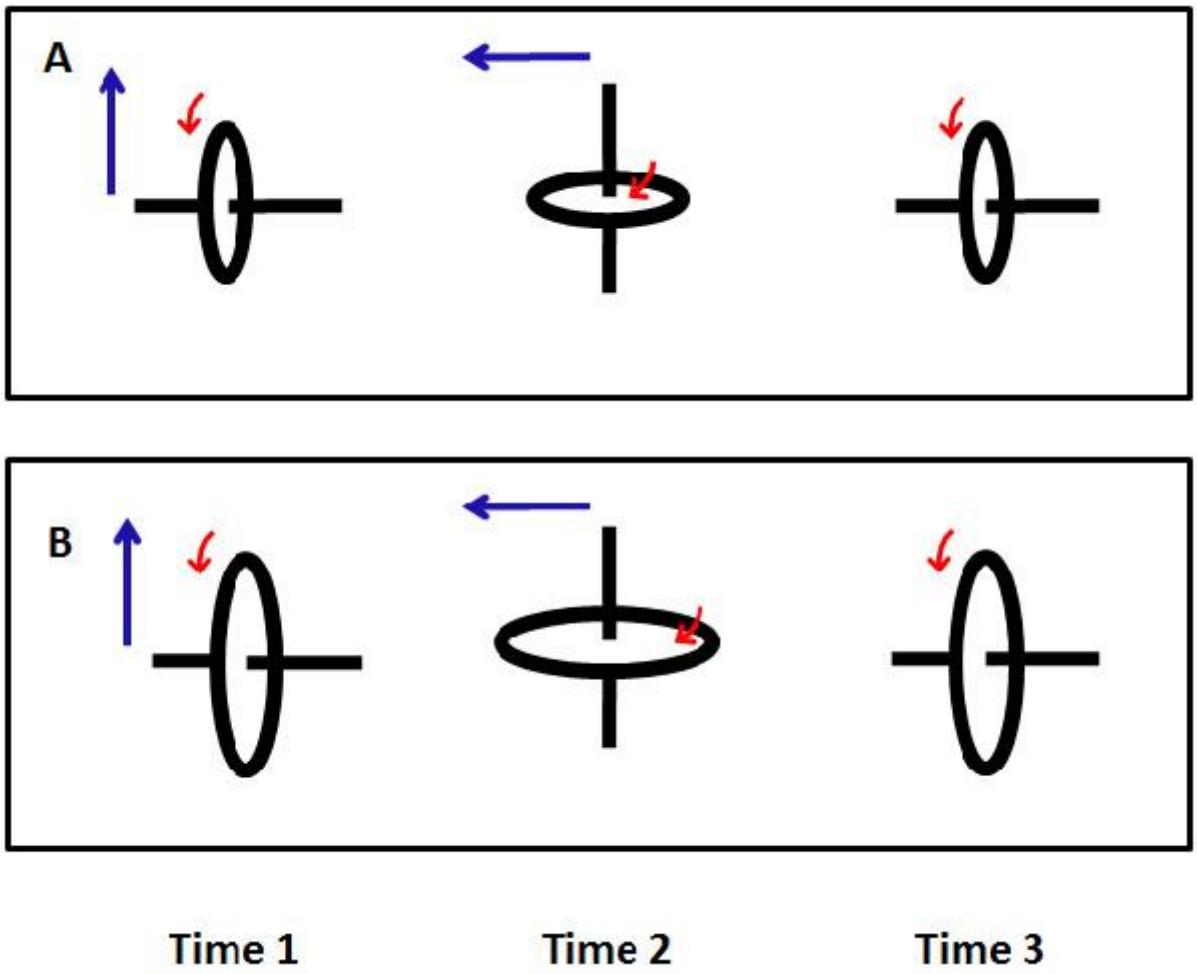
***10. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



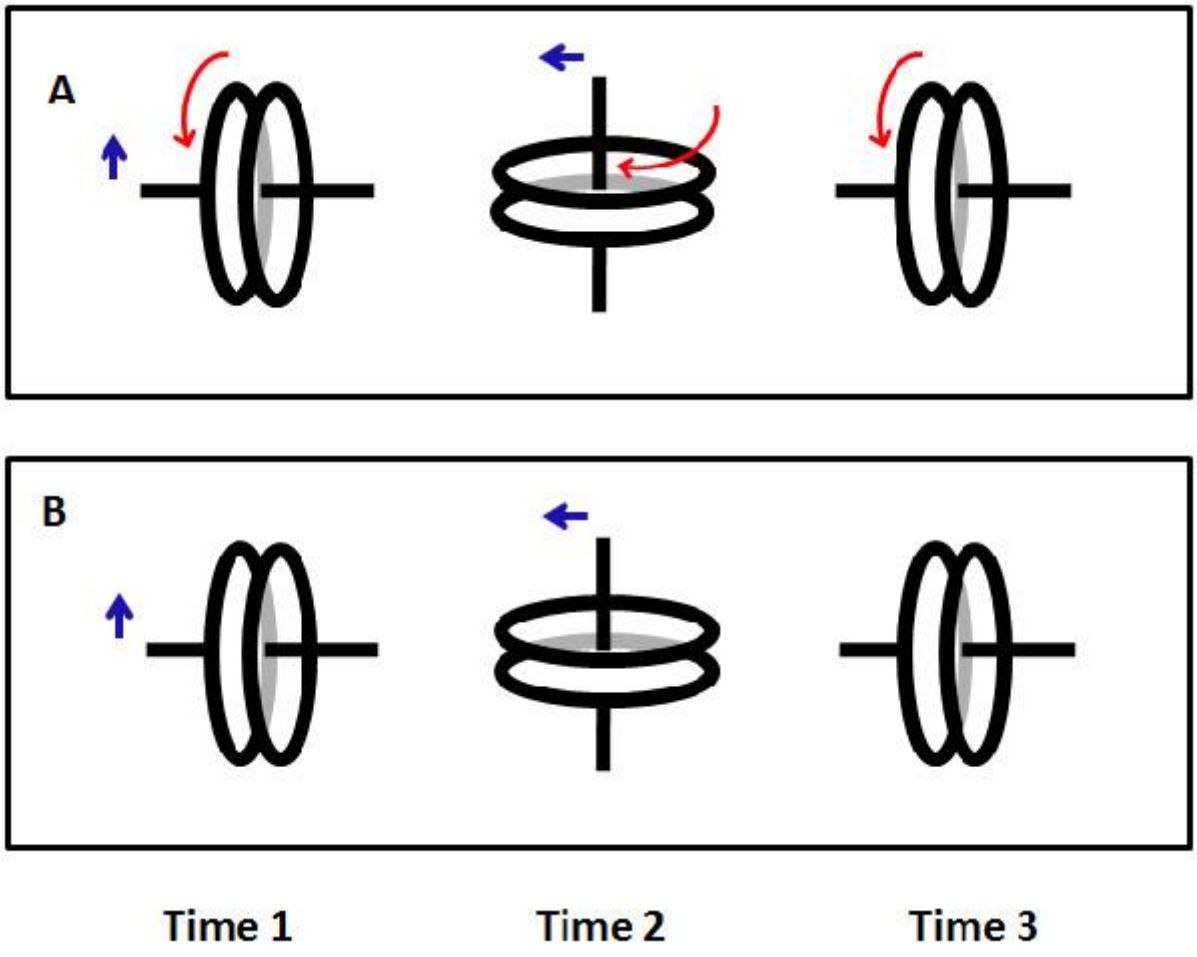
***11. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



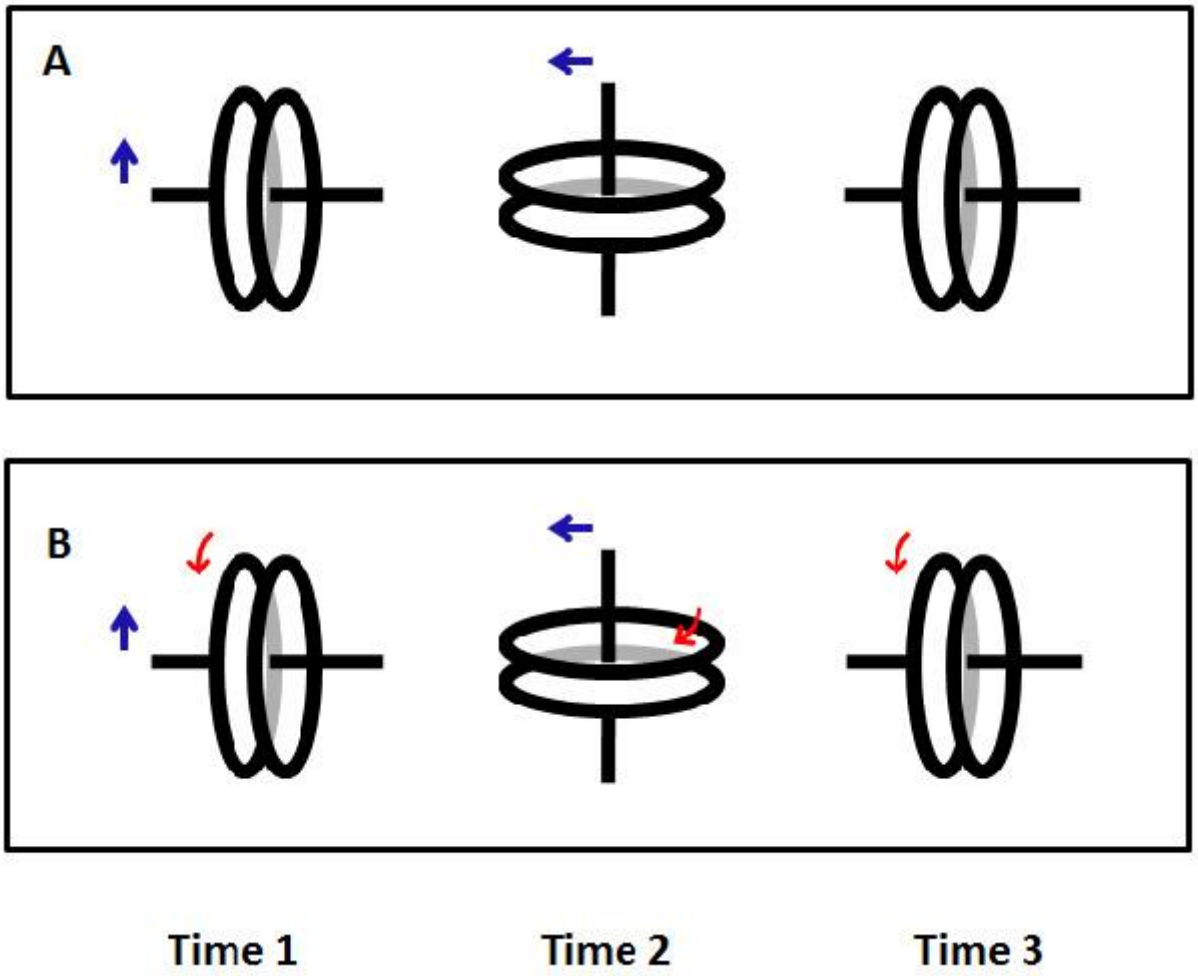
***12. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



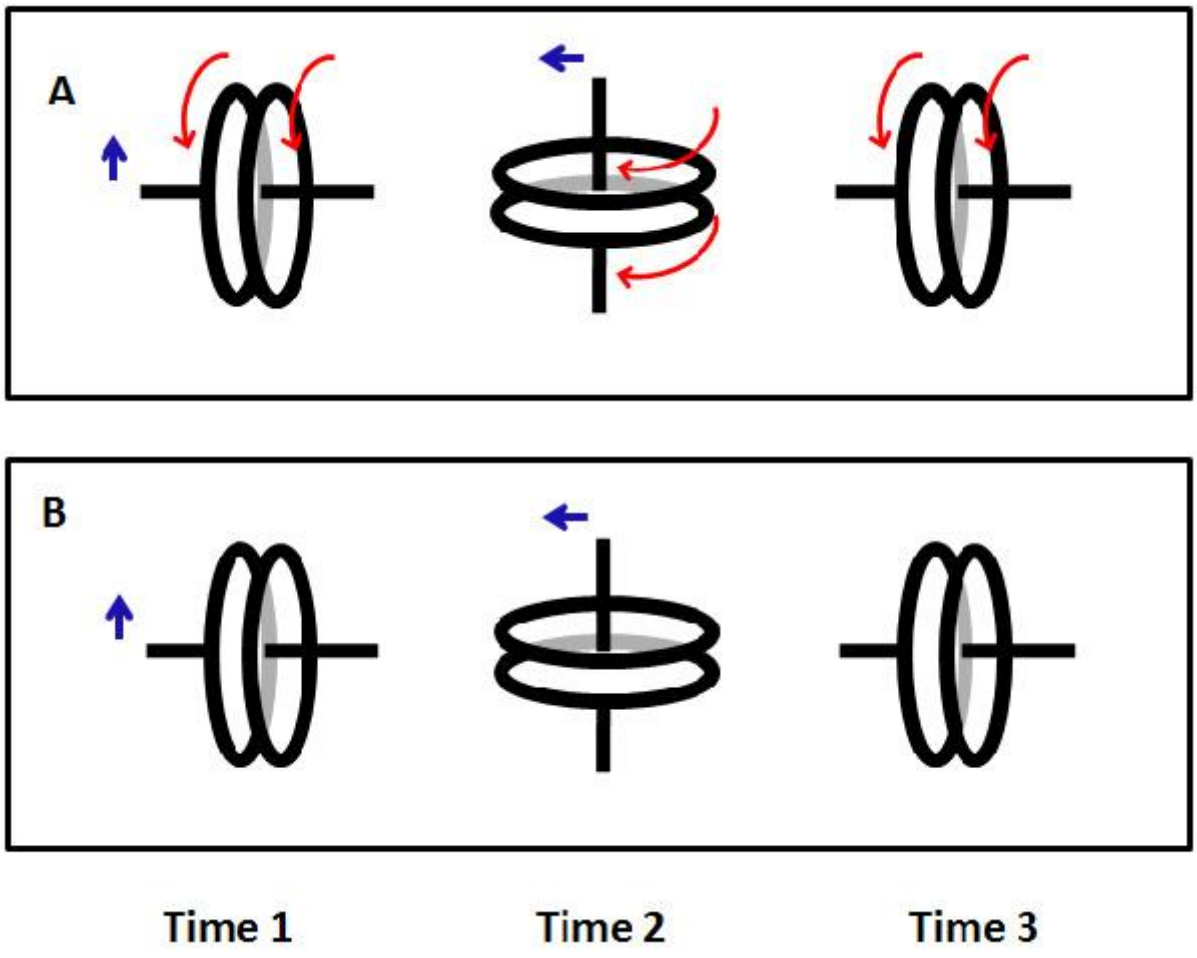
***13. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



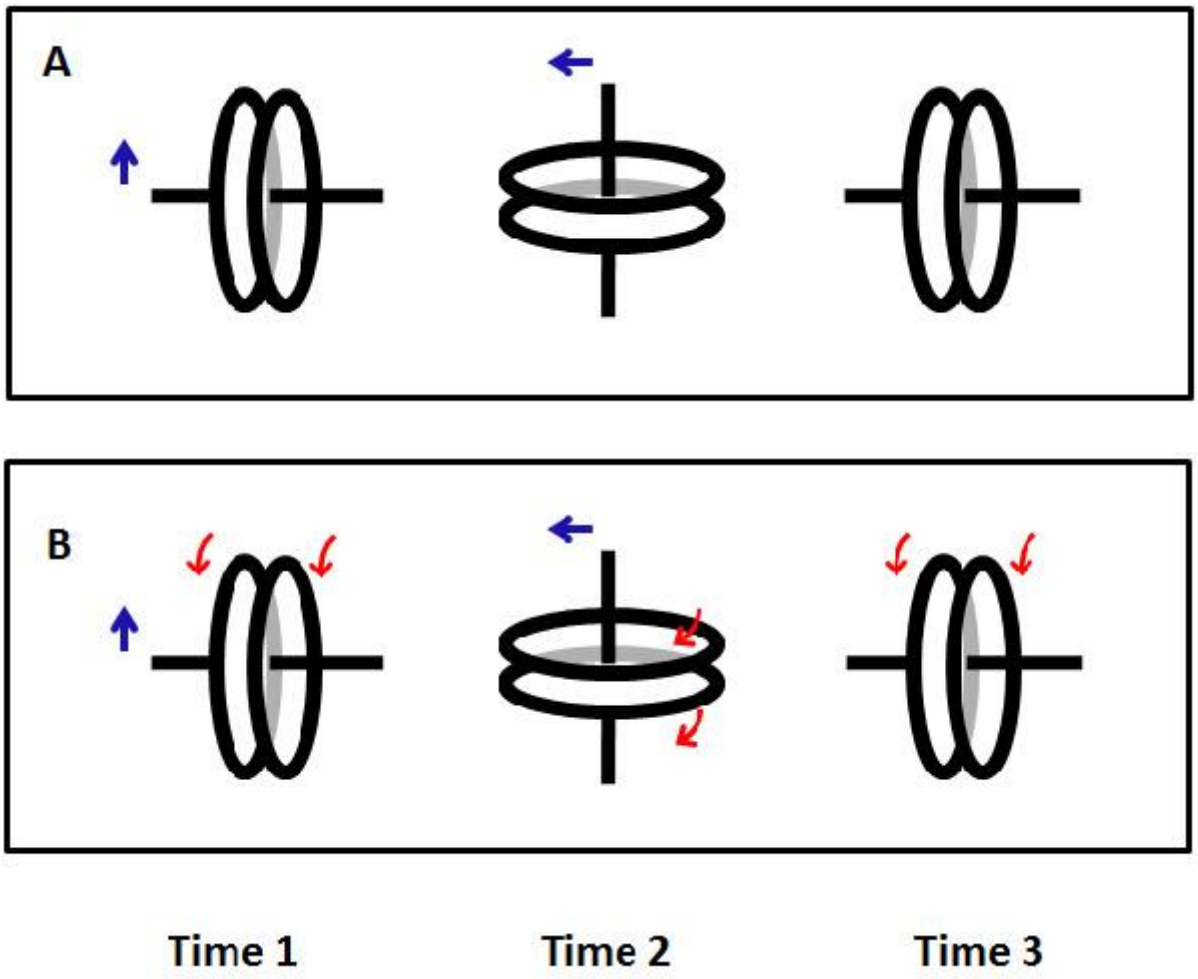
***14. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



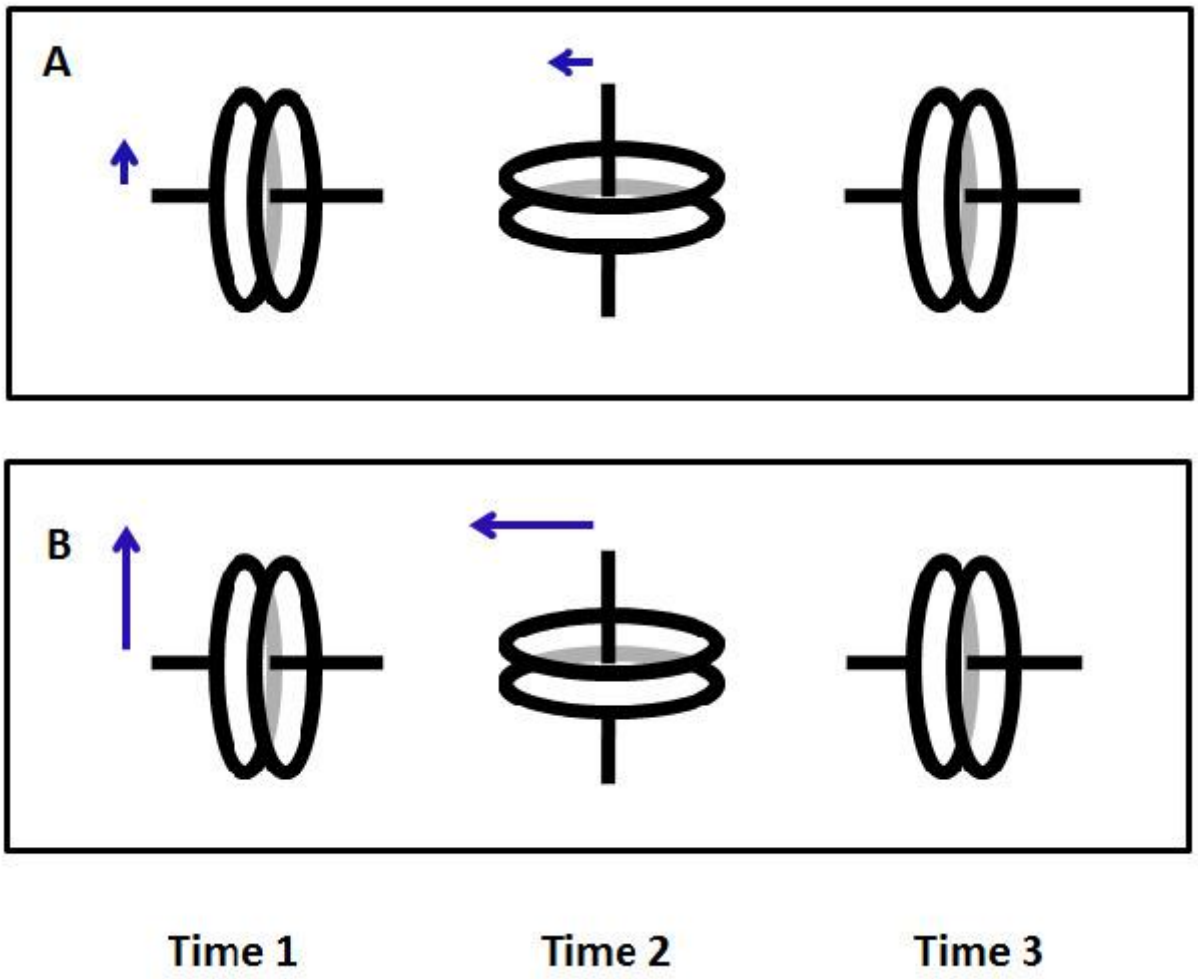
***15. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



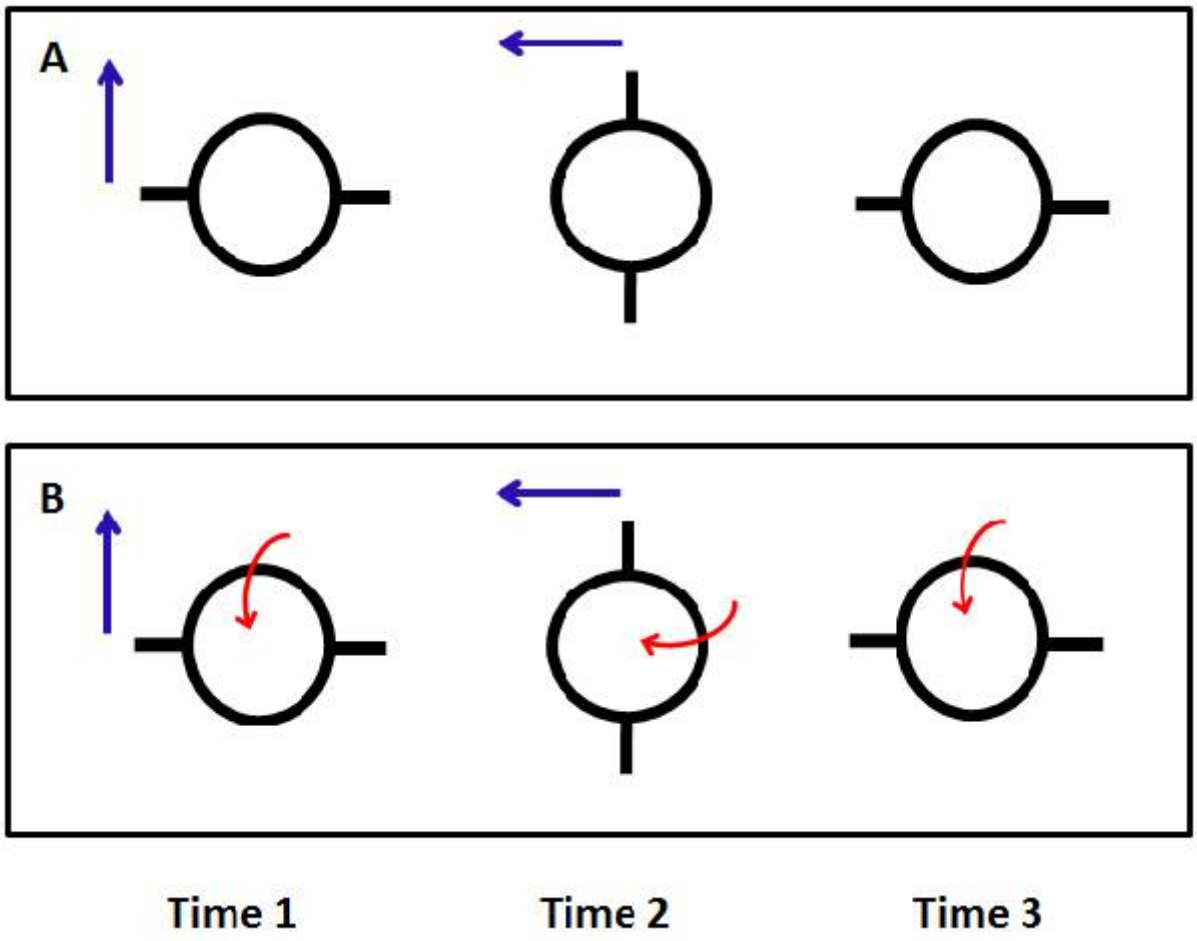
***16. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



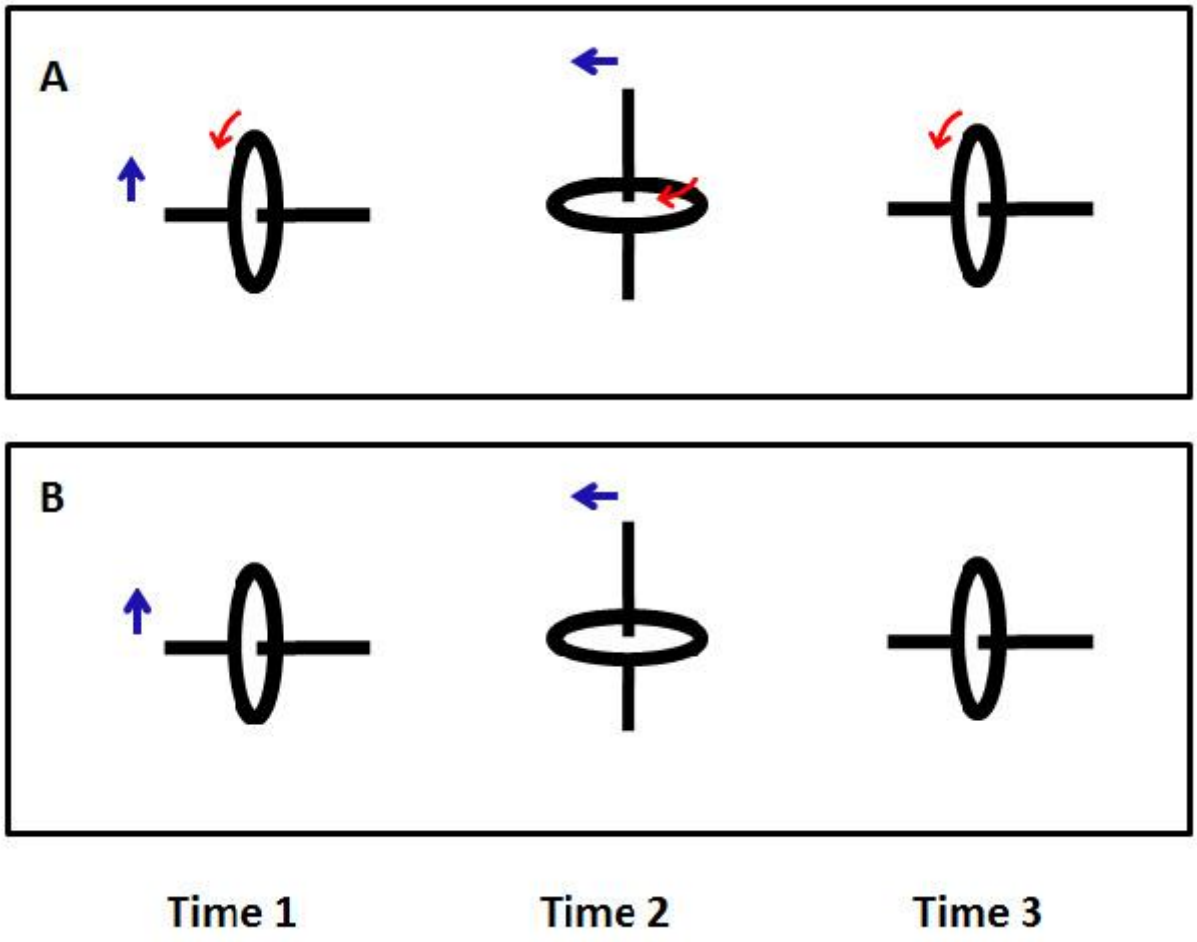
***17. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



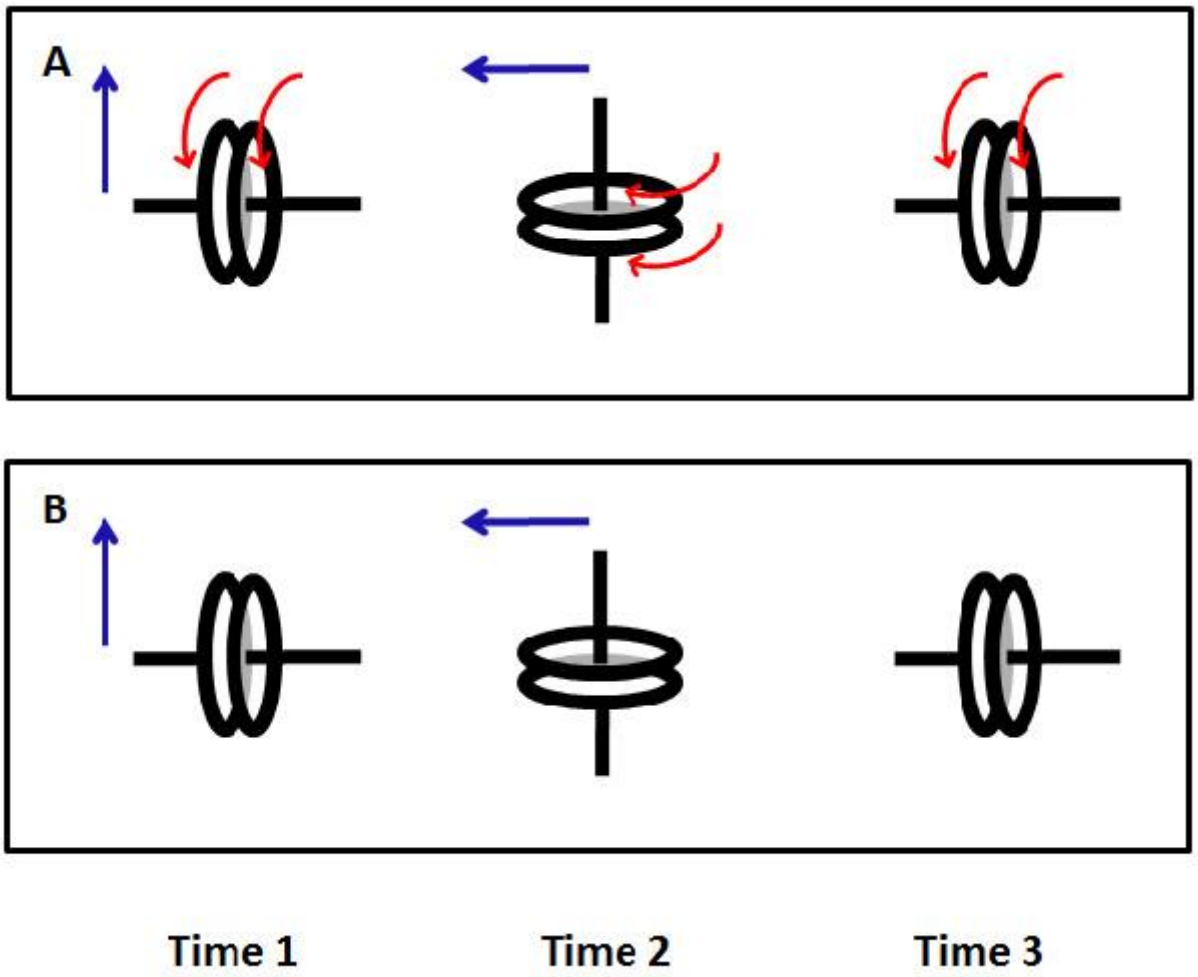
***18. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



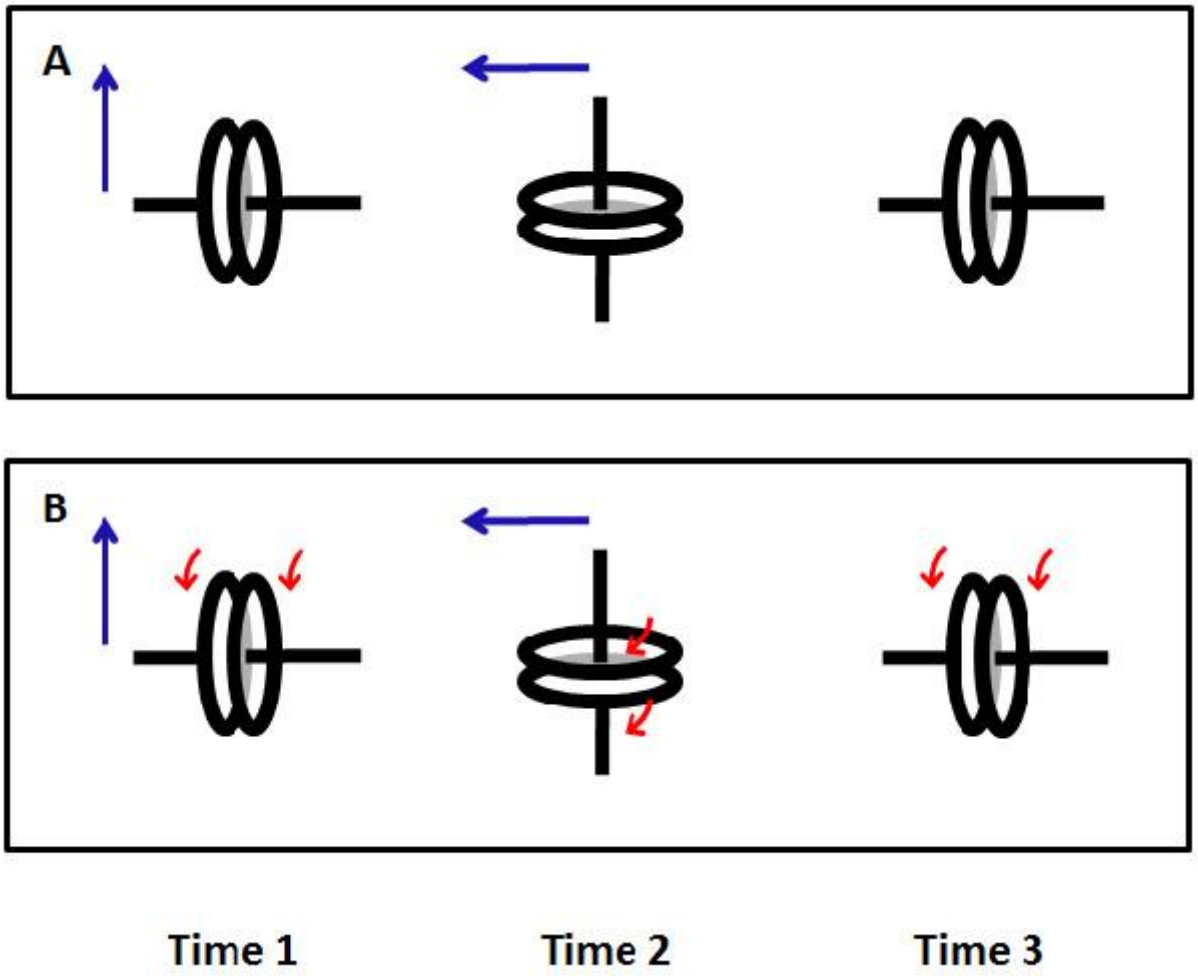
***19. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



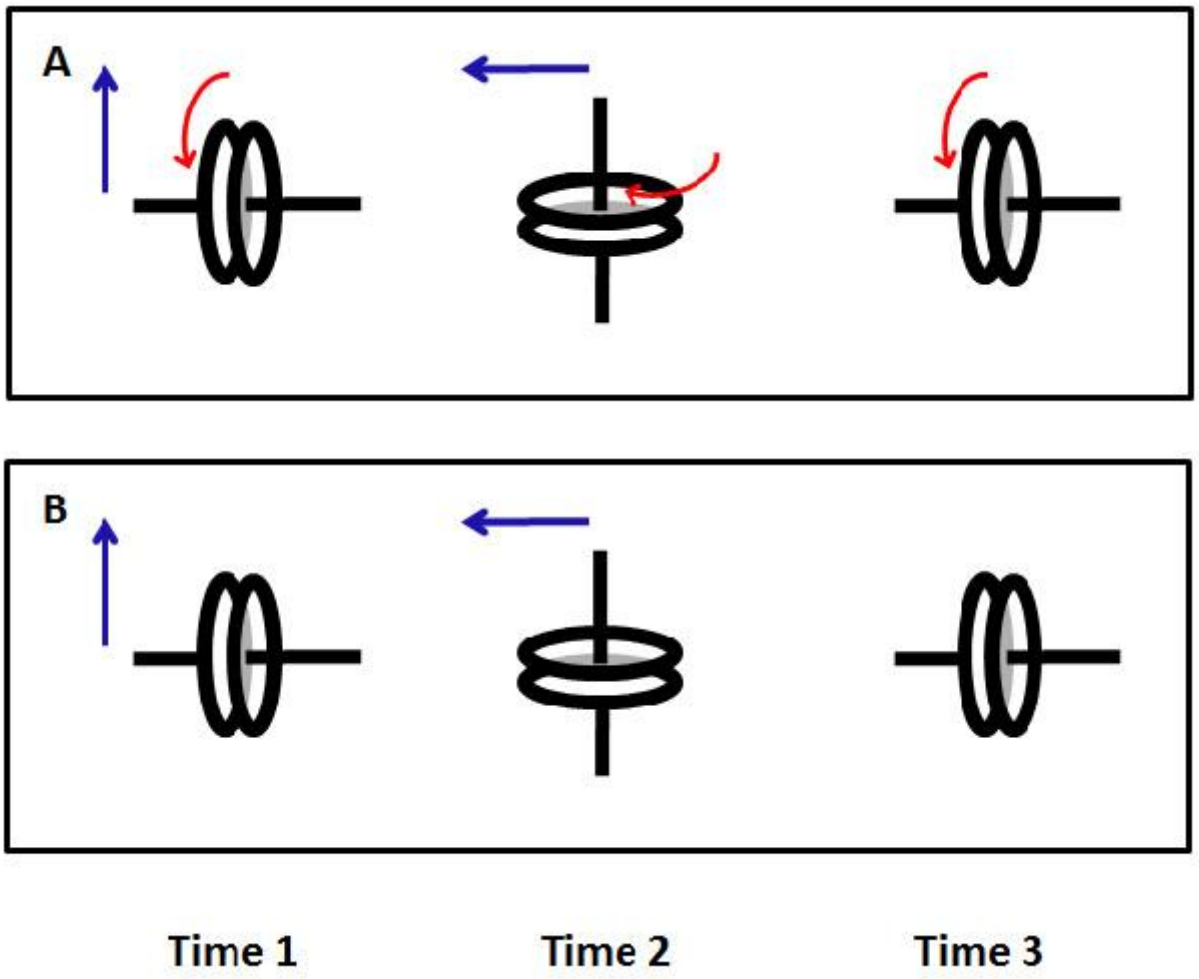
***20. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



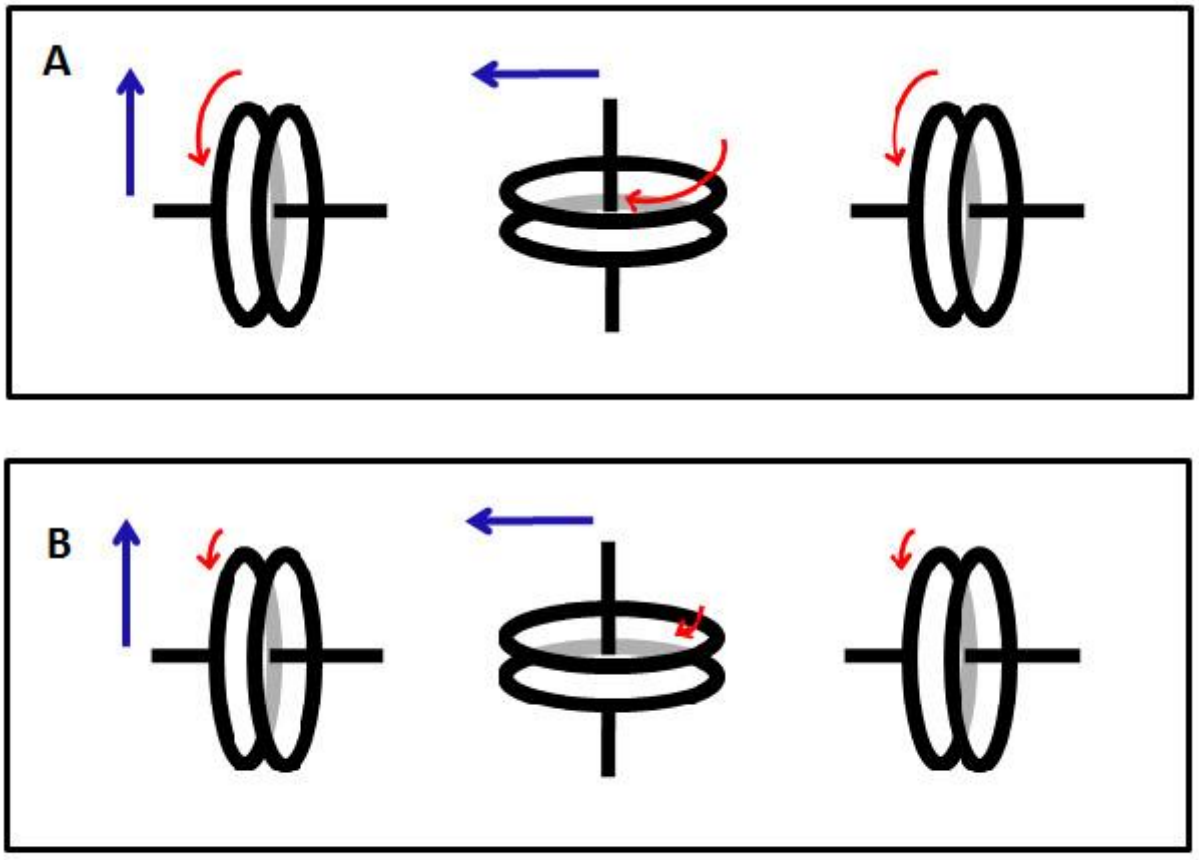
***21. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



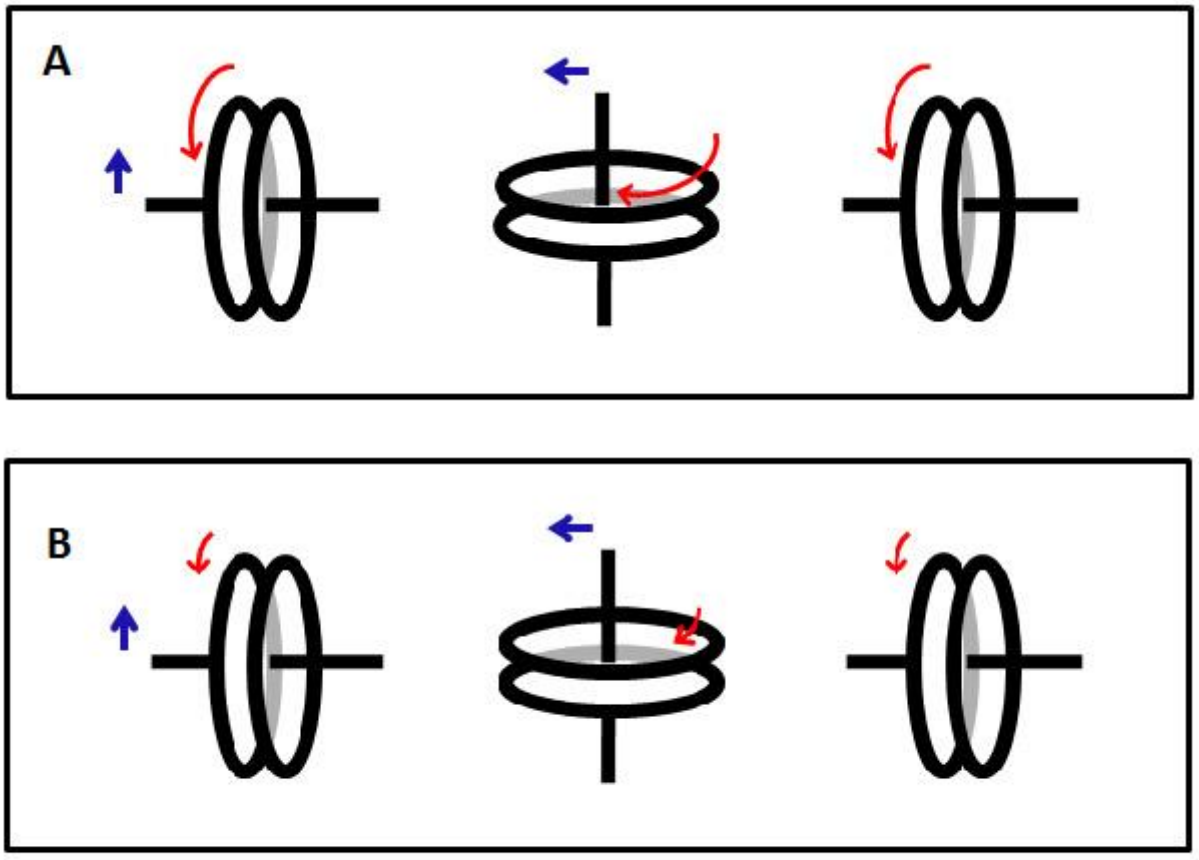
***22. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



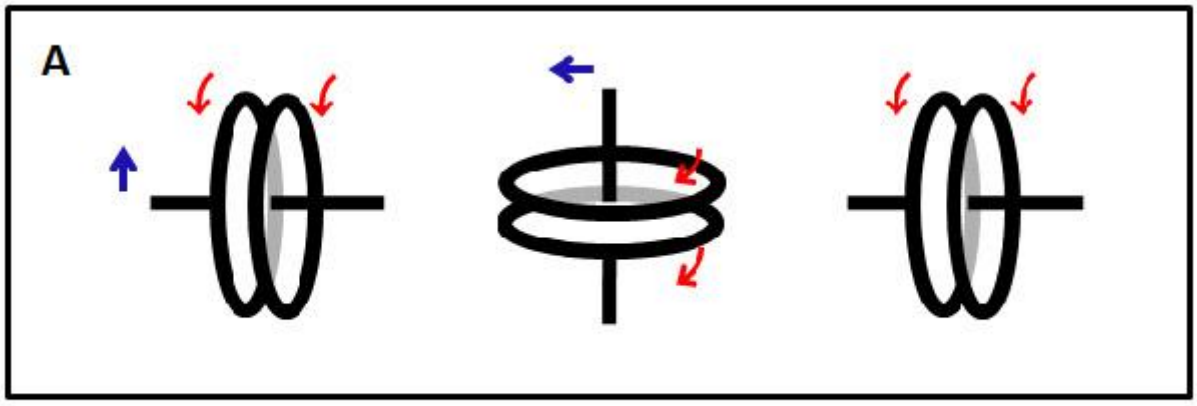
***23. During which sequence would tilting the axle result in the most resistive force?**

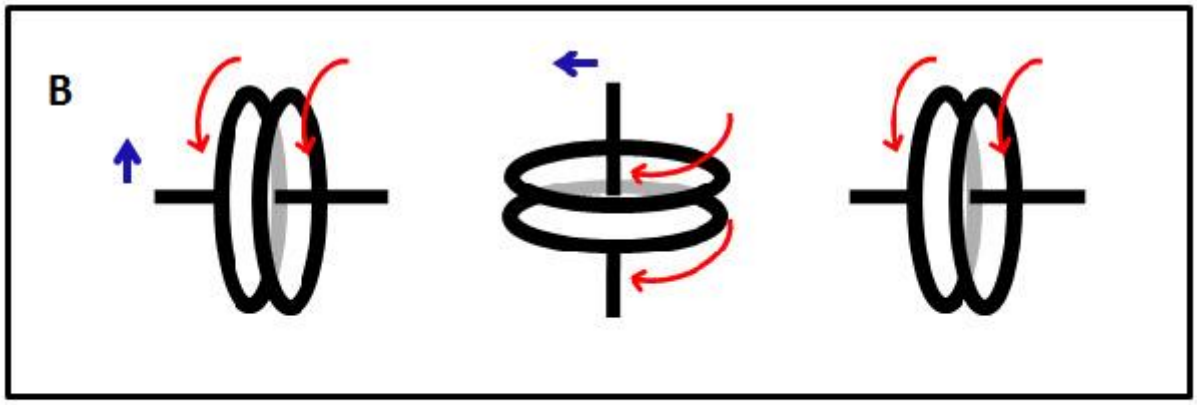
- [ ] A
- [ ] Same
- [ ] B



***24. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B

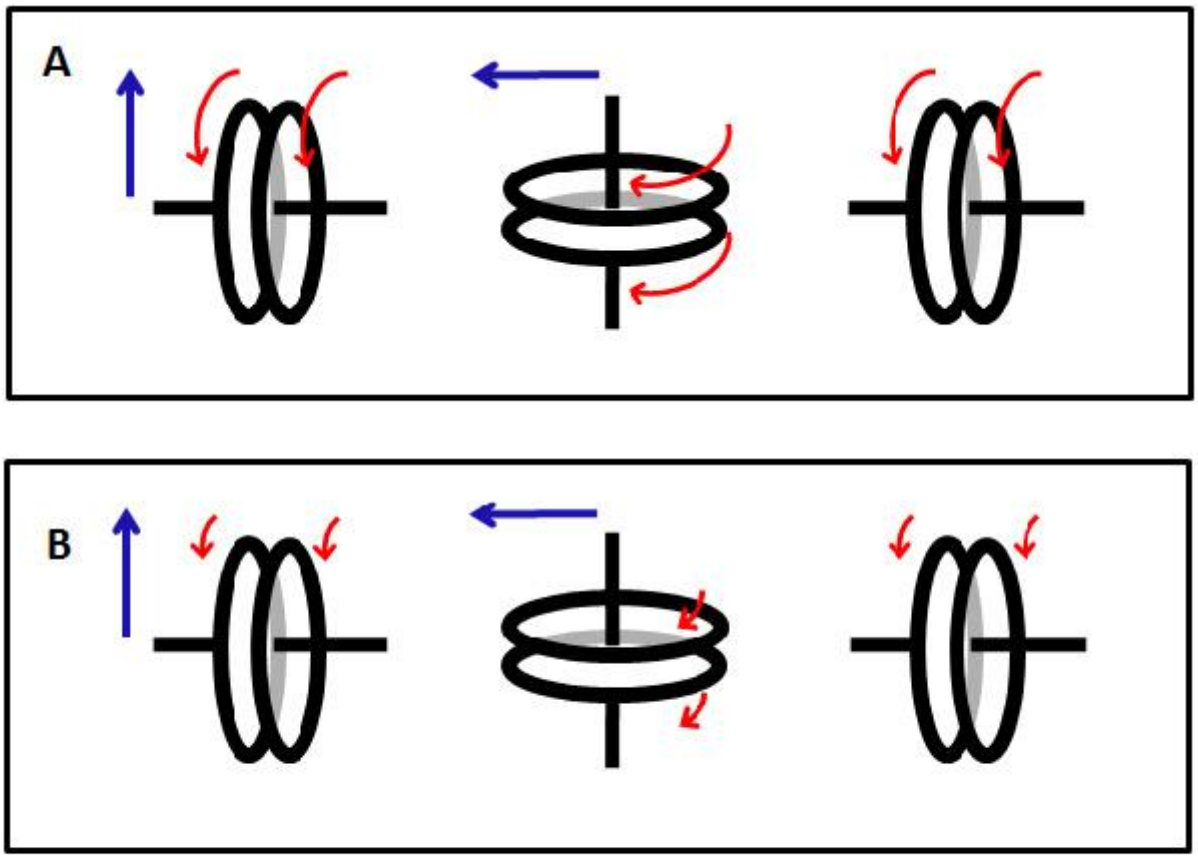




Time 1 Time 2 Time 3

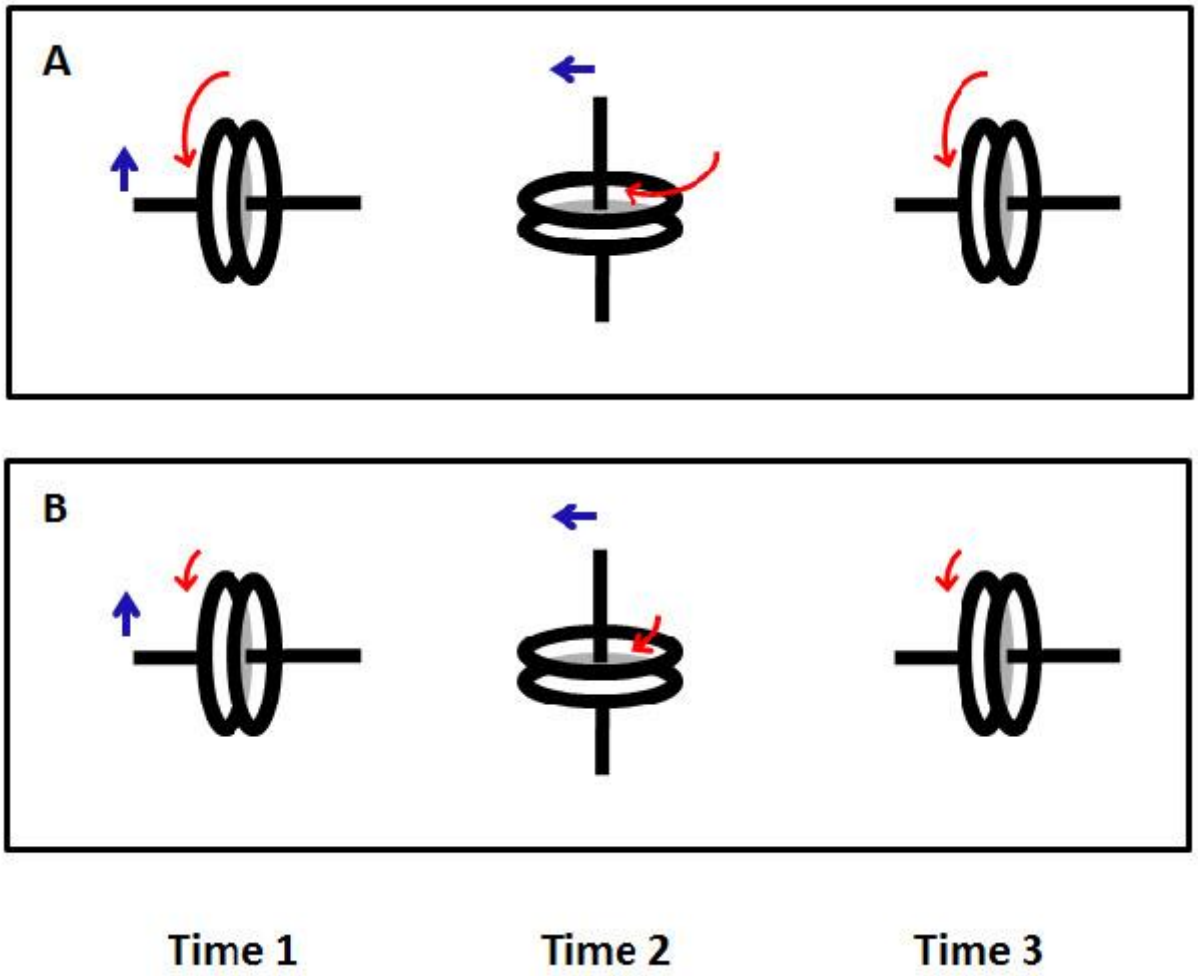
***25. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



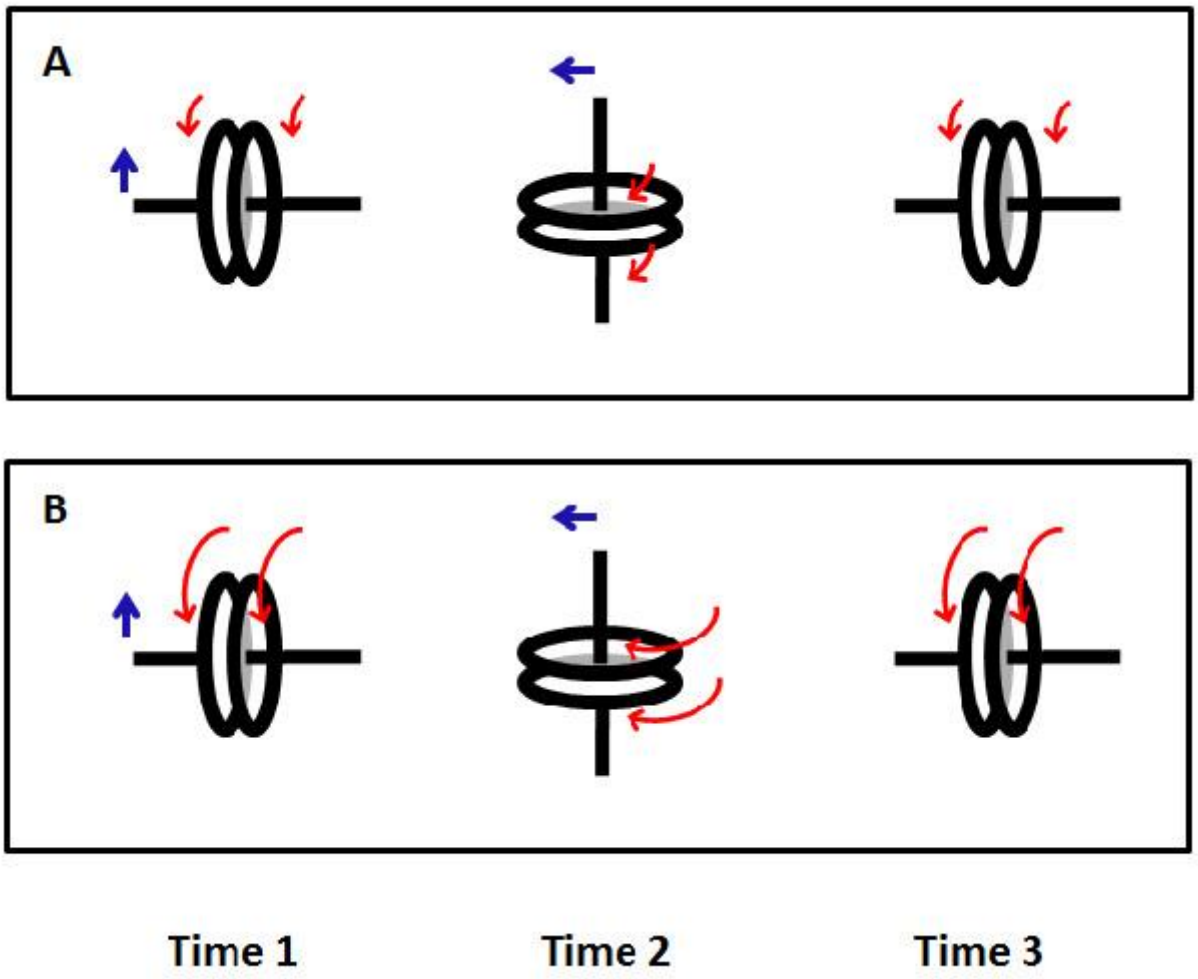
***26. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



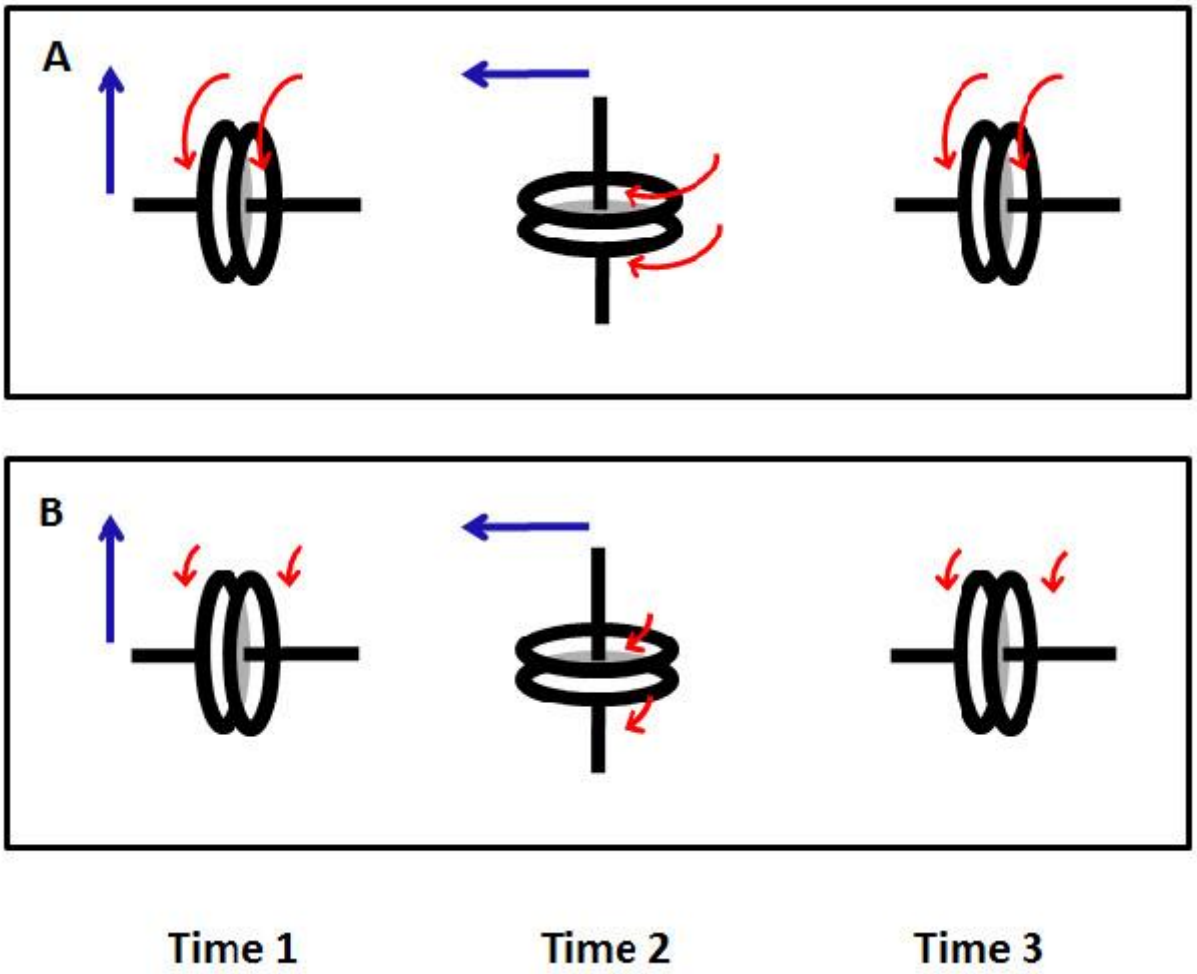
***27. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



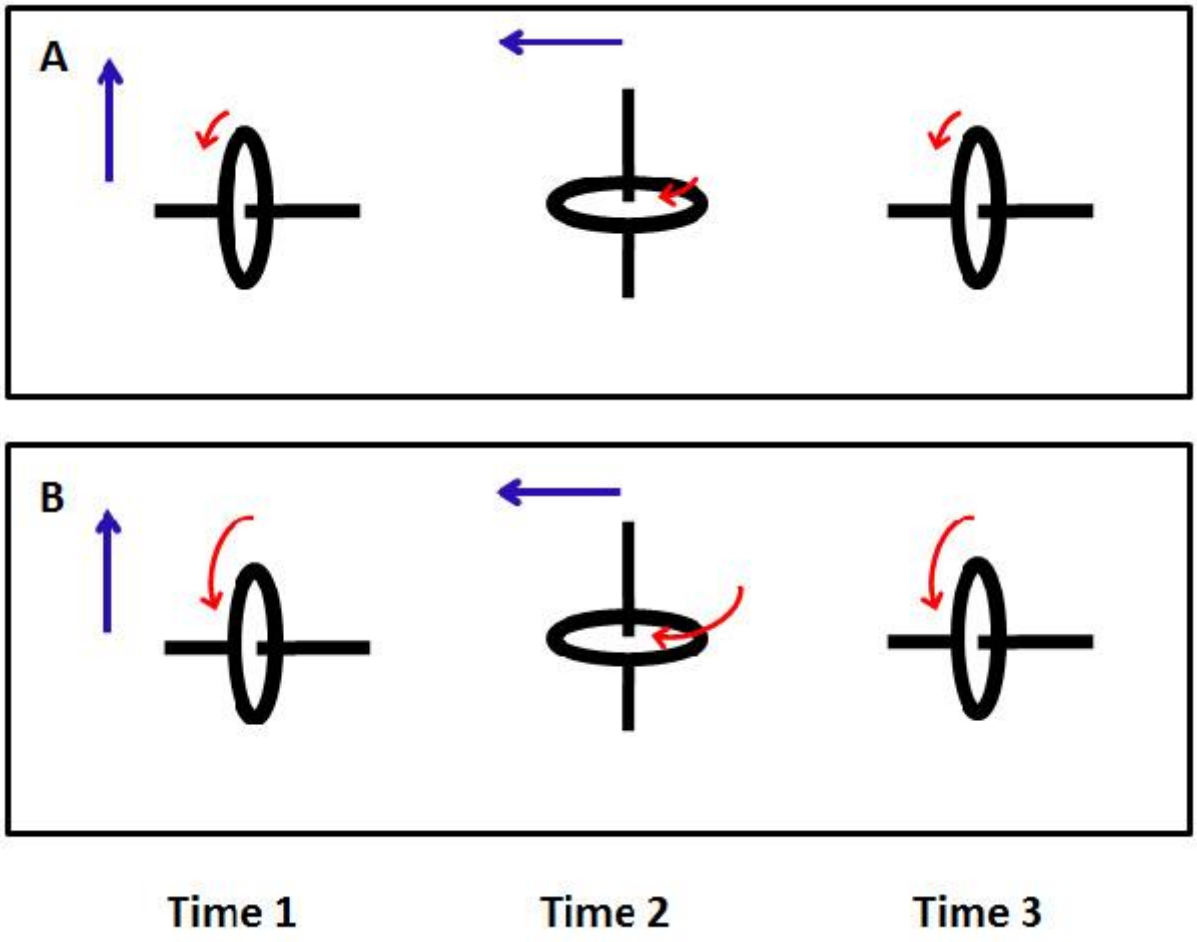
***28. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



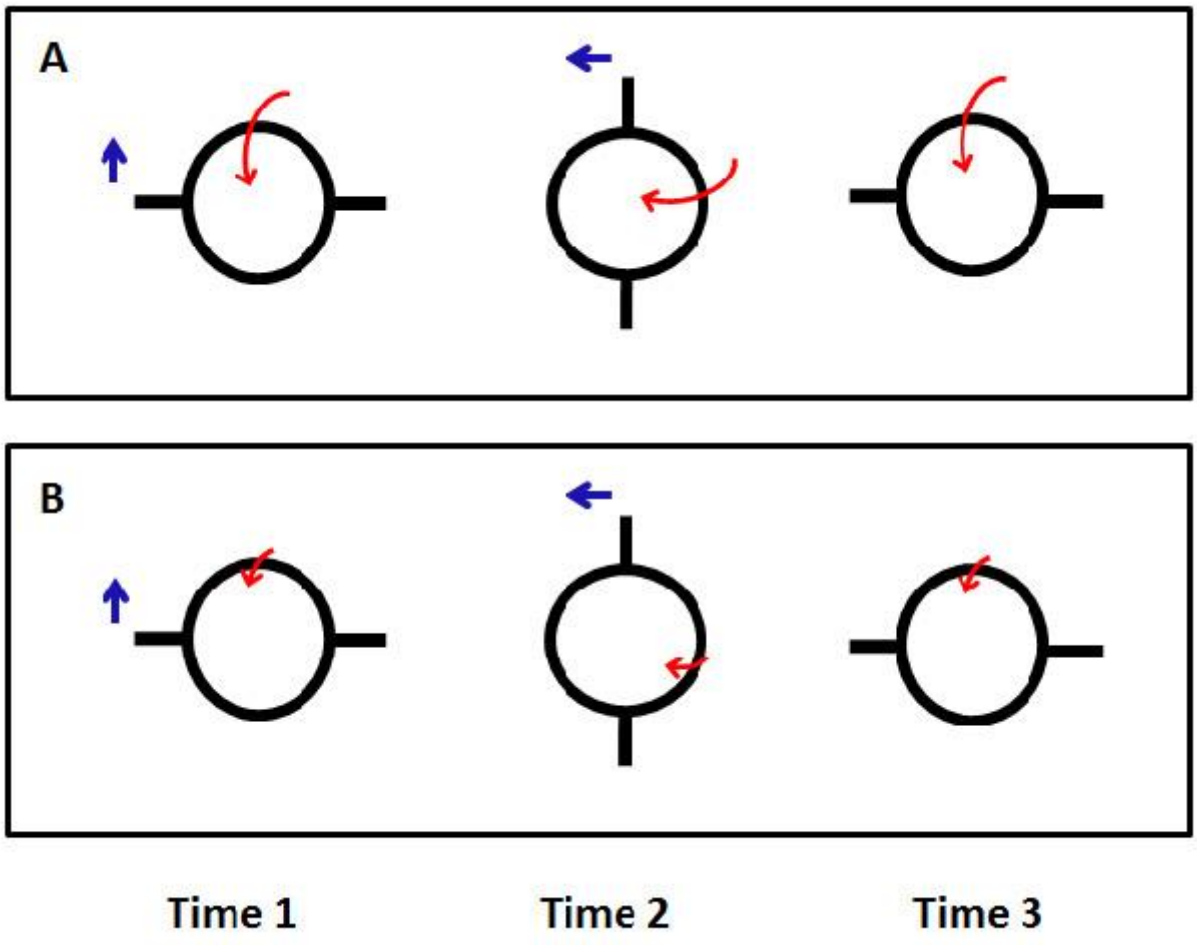
***29. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



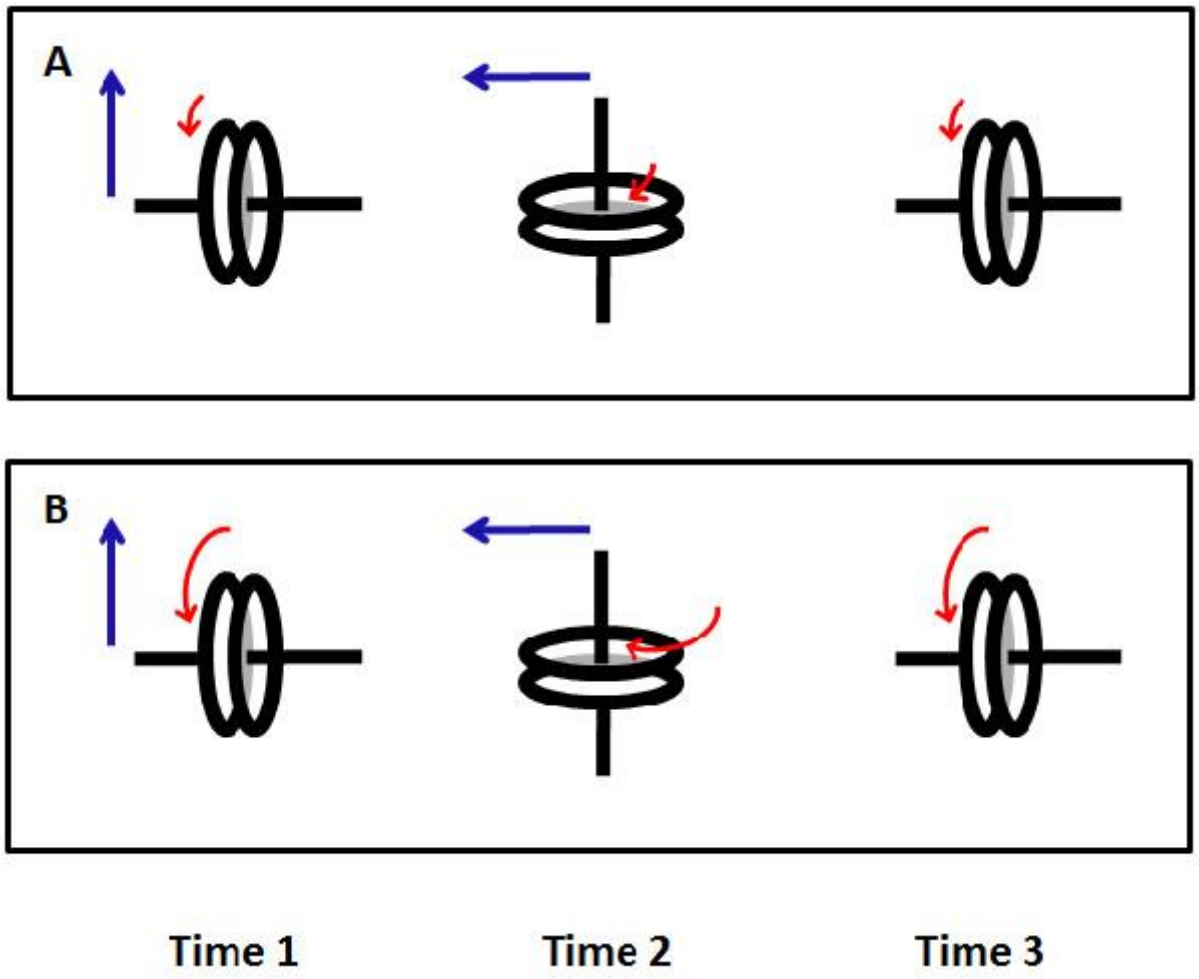
***30. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



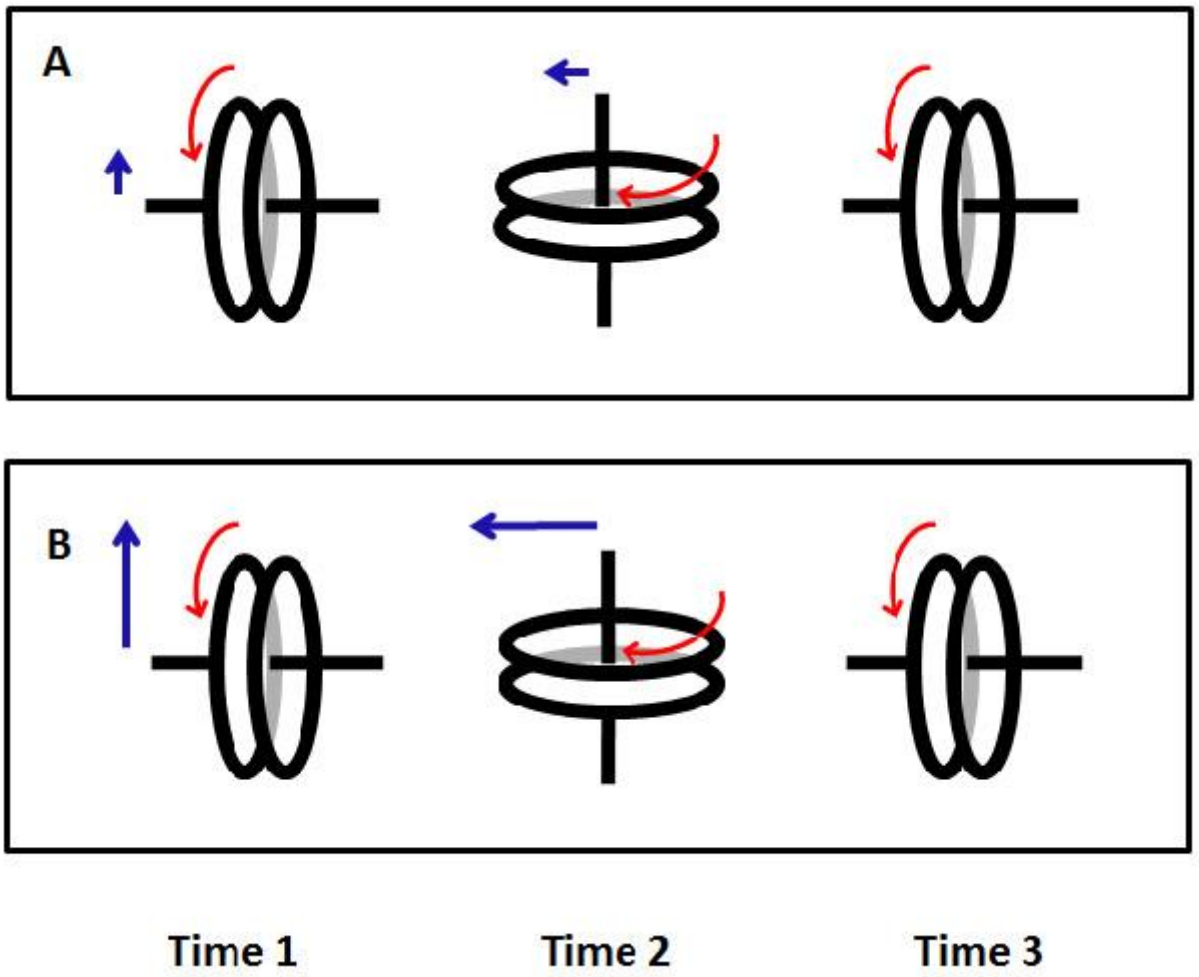
***31. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



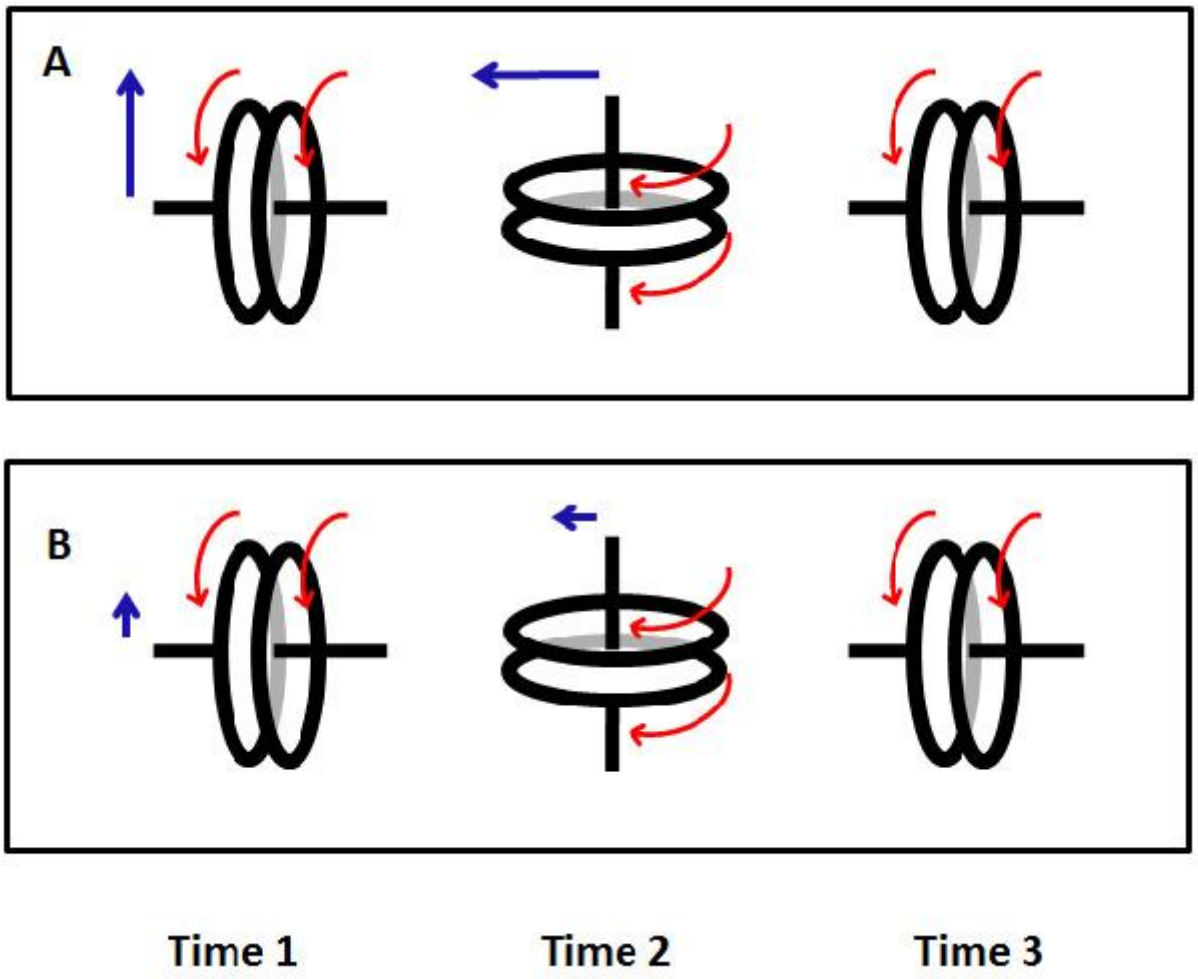
***32. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



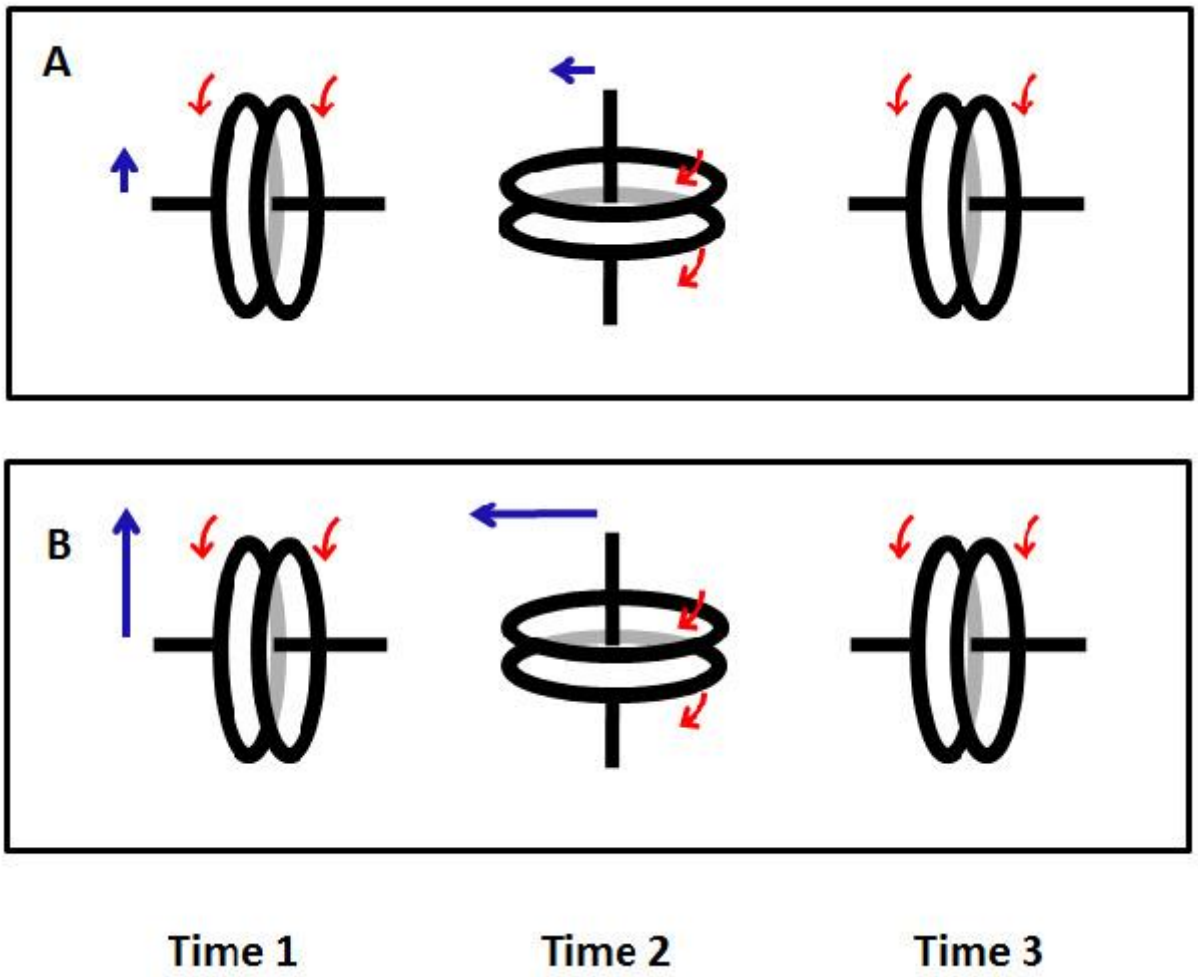
***33. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



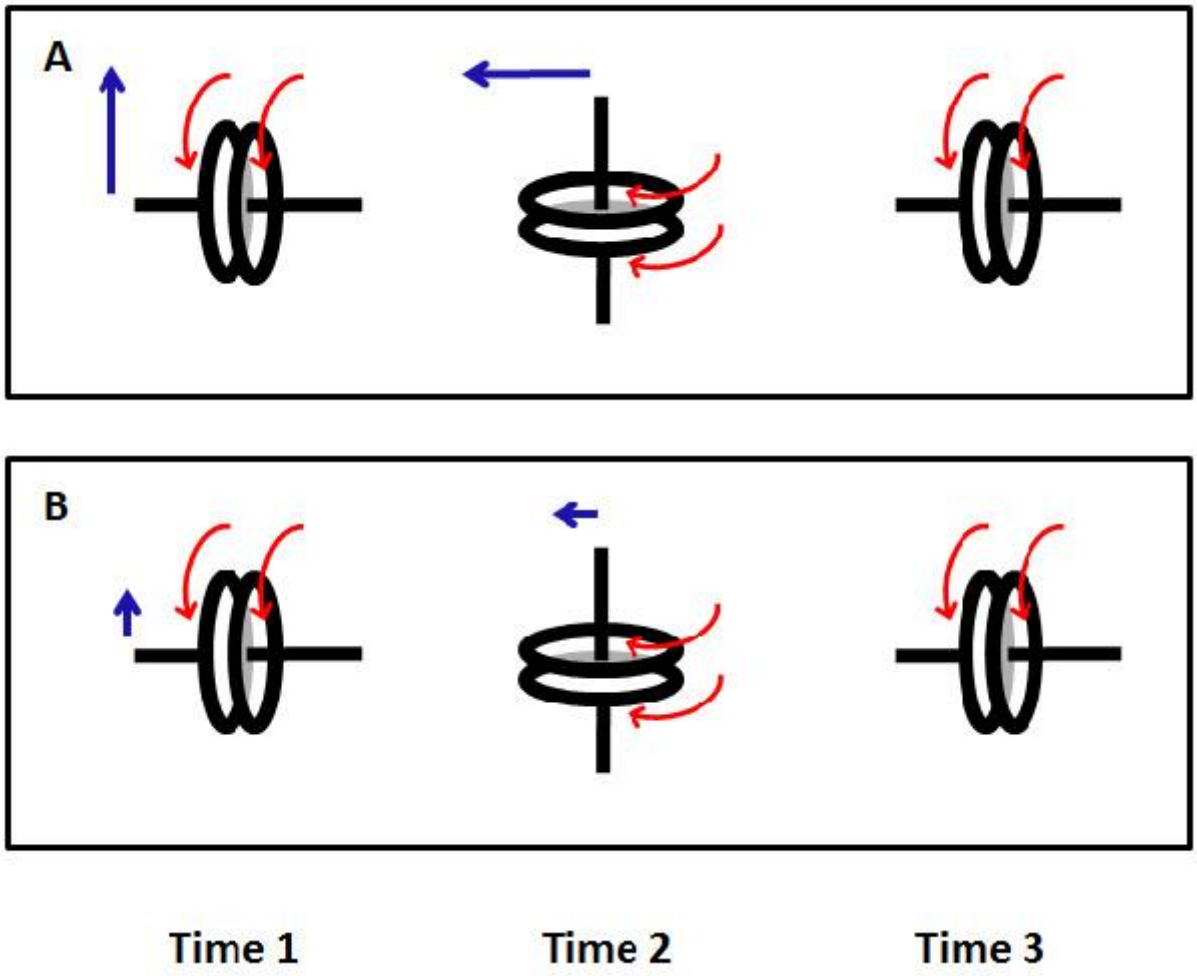
***34. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



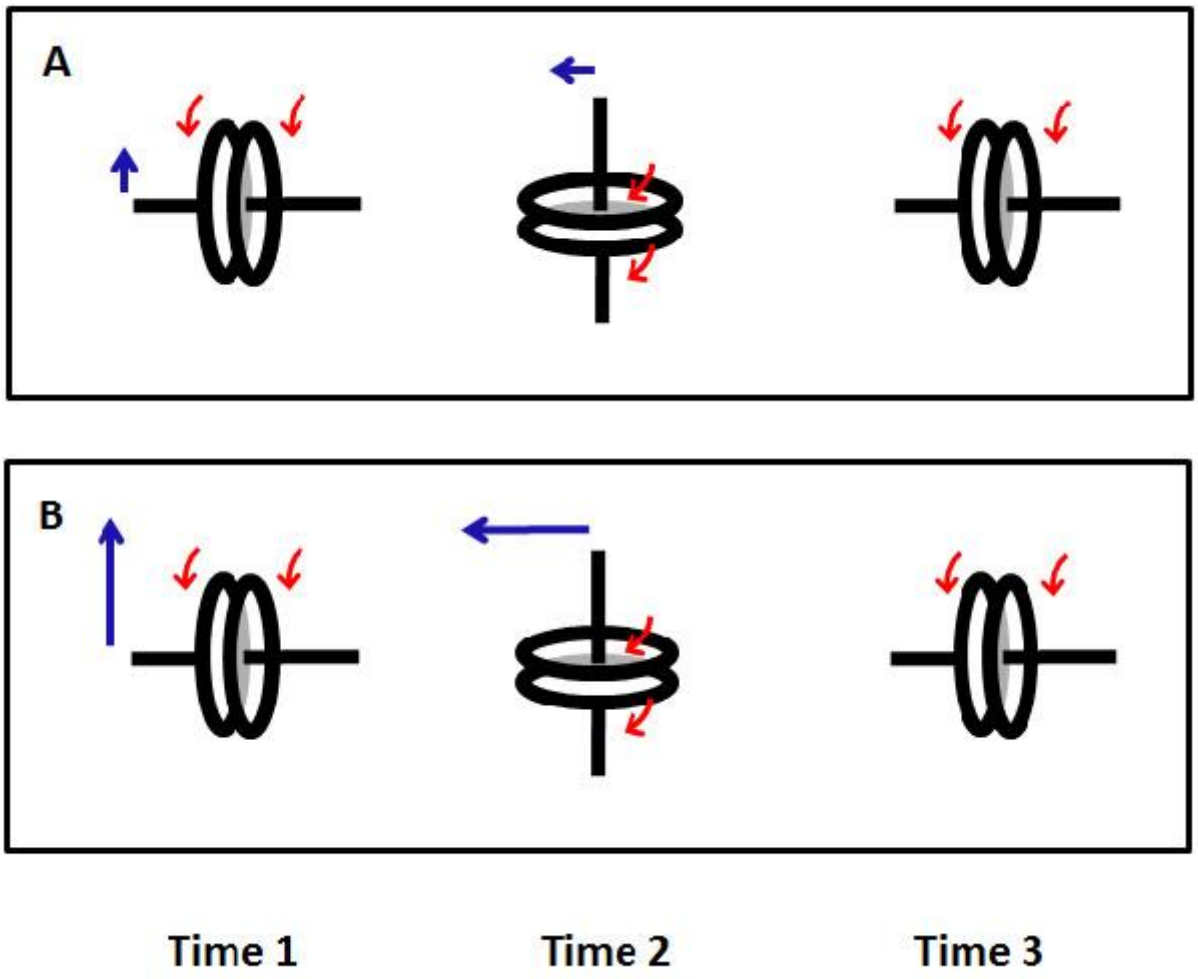
***35. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



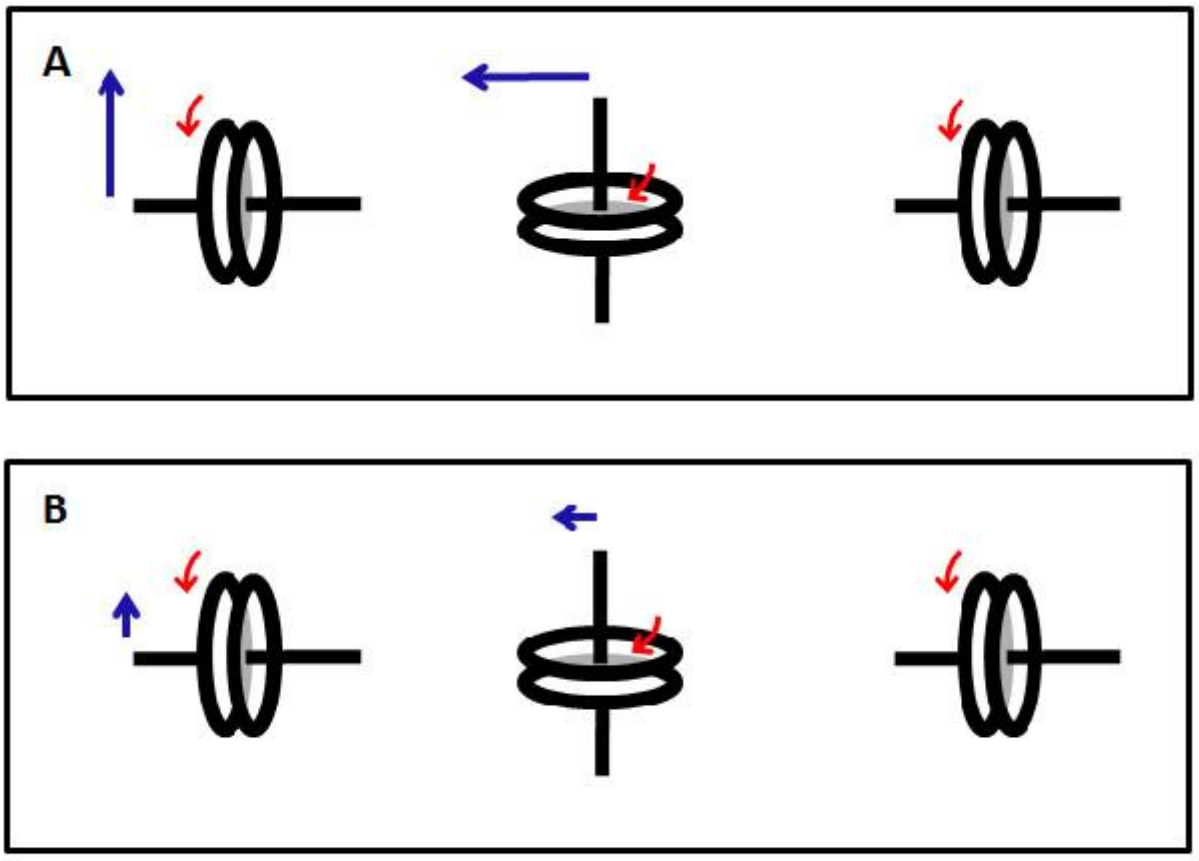
***36. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



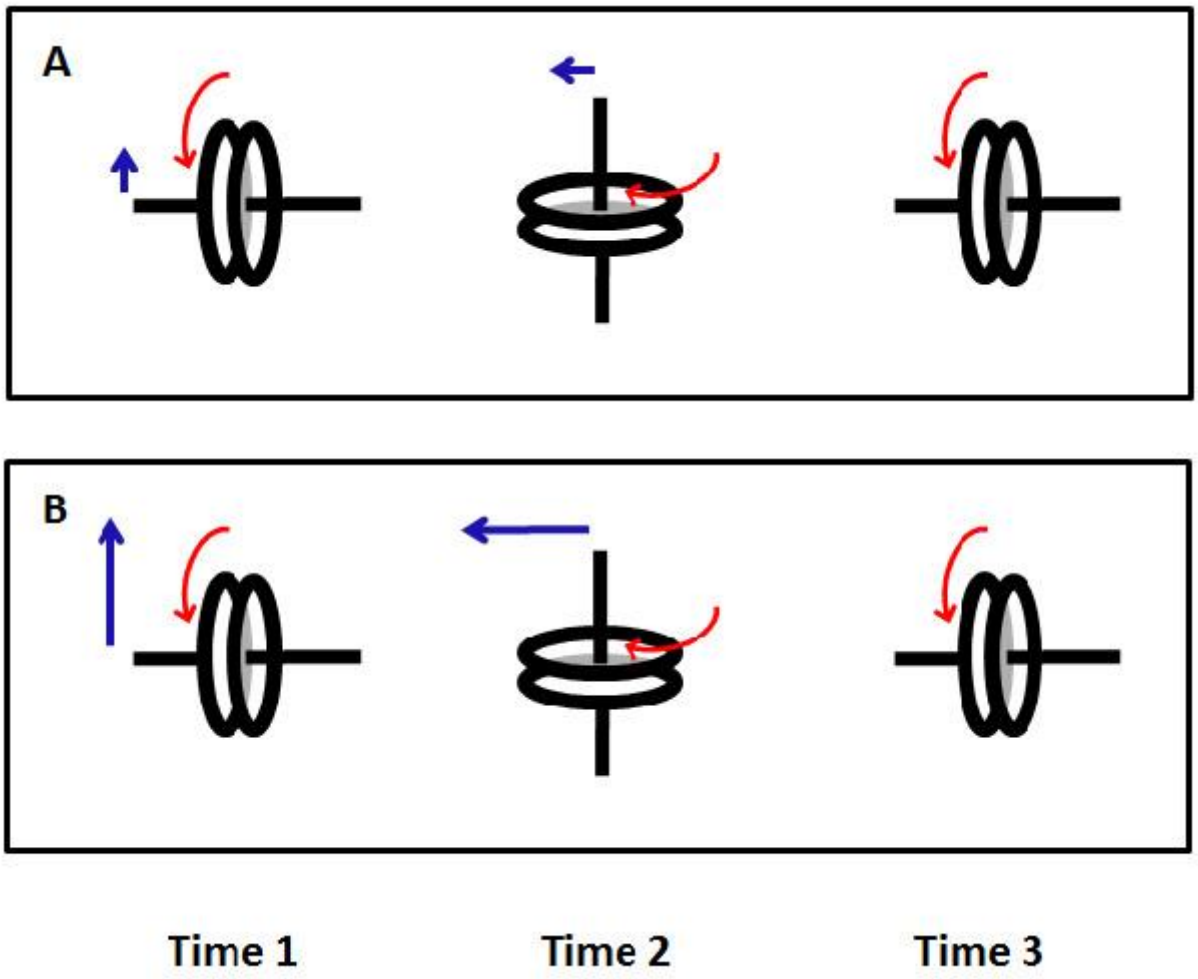
***37. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



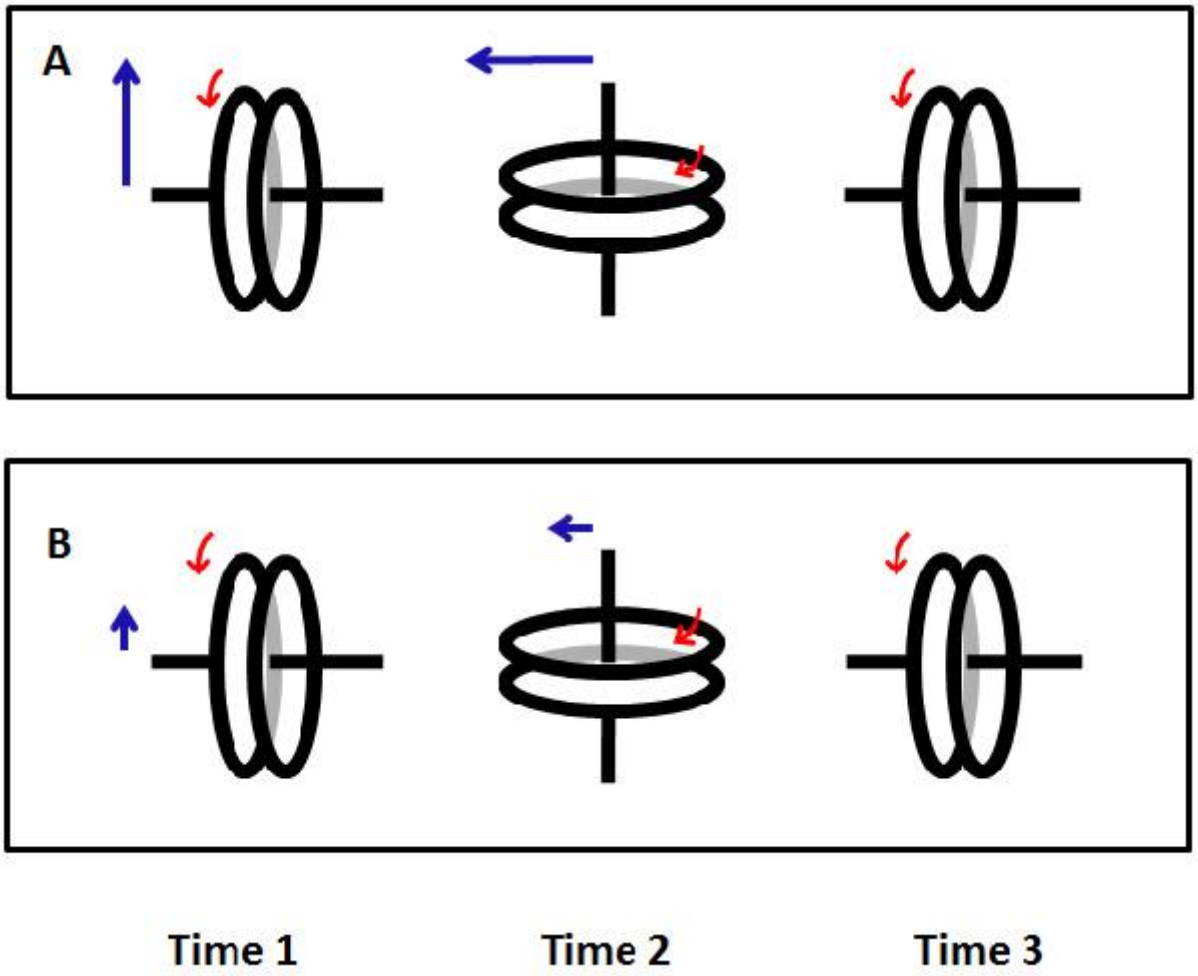
***38. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



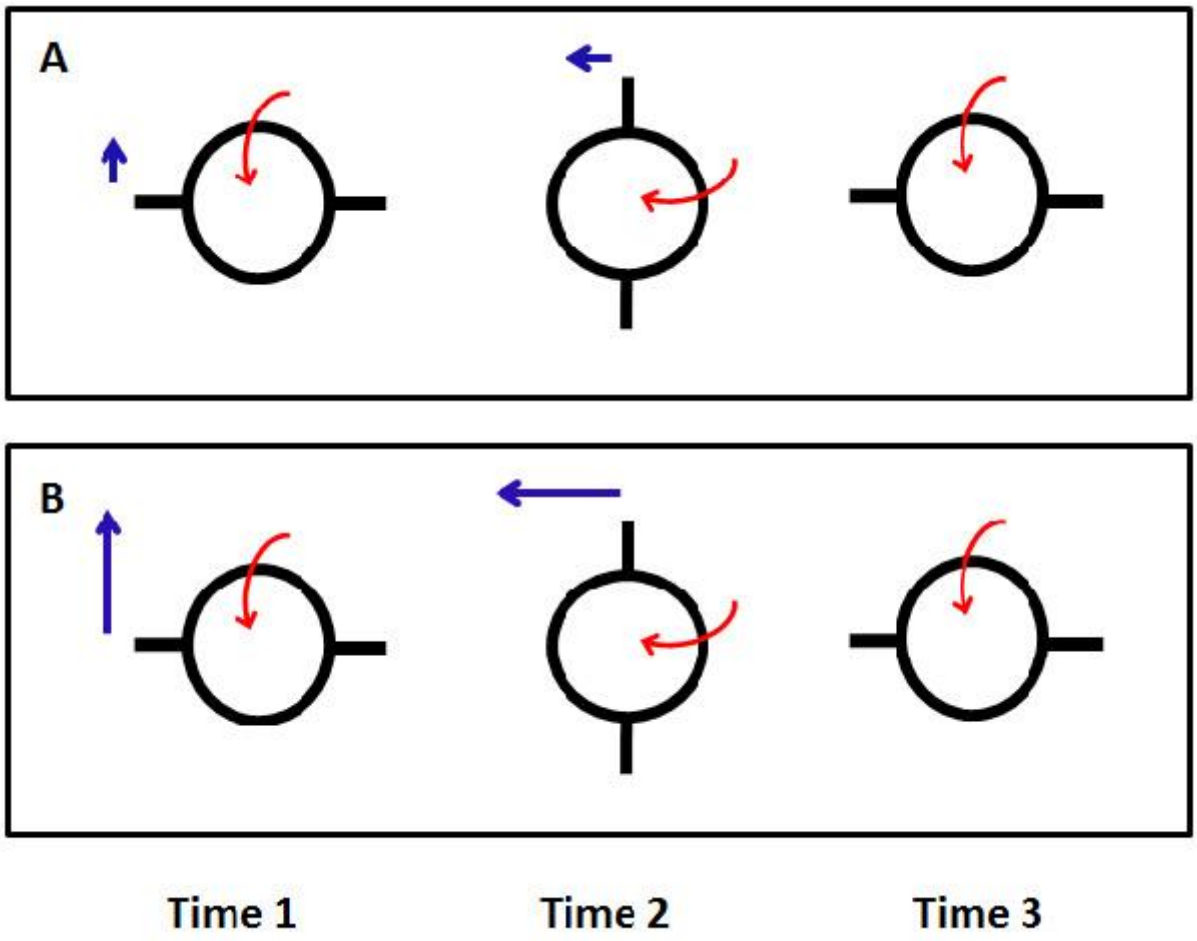
***39. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



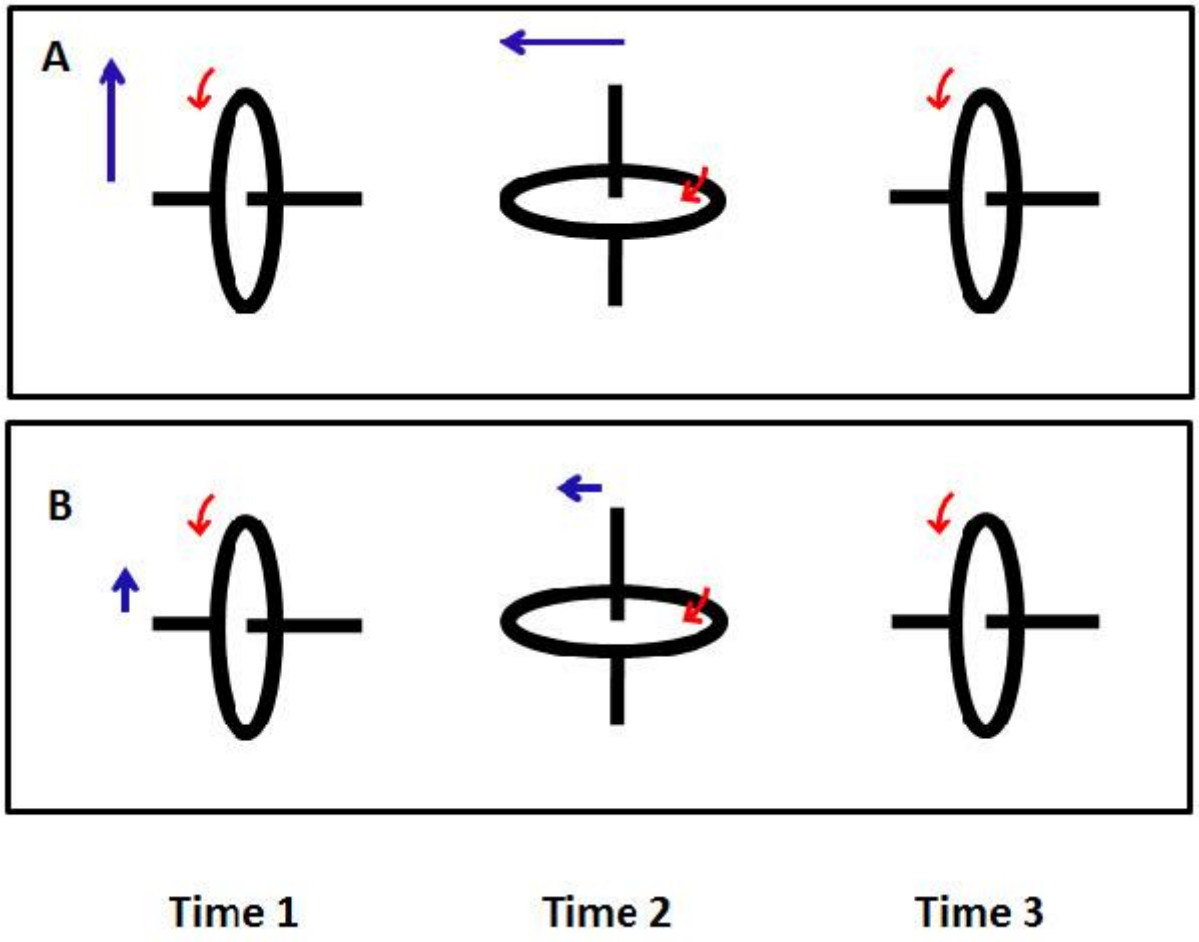
***40. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



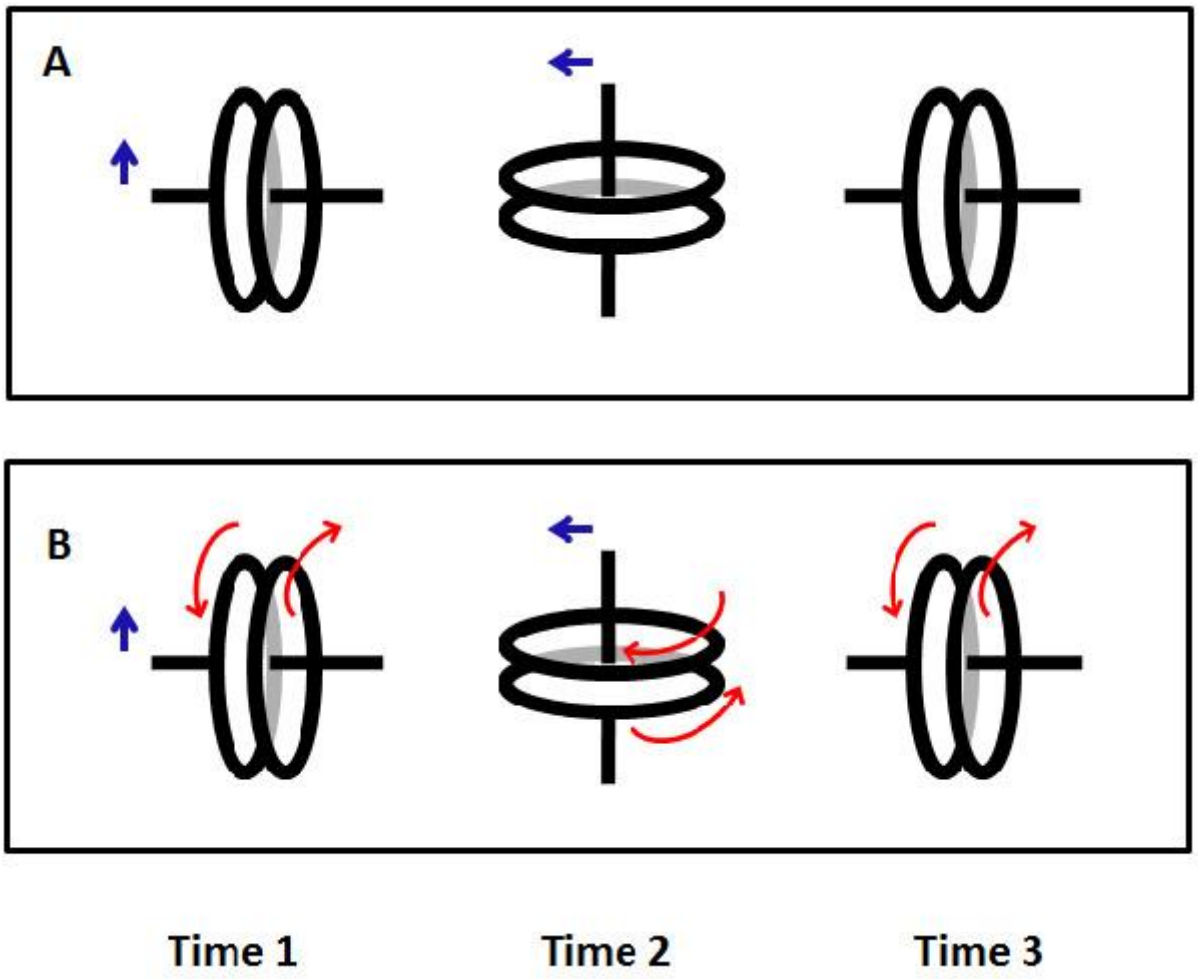
***41. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



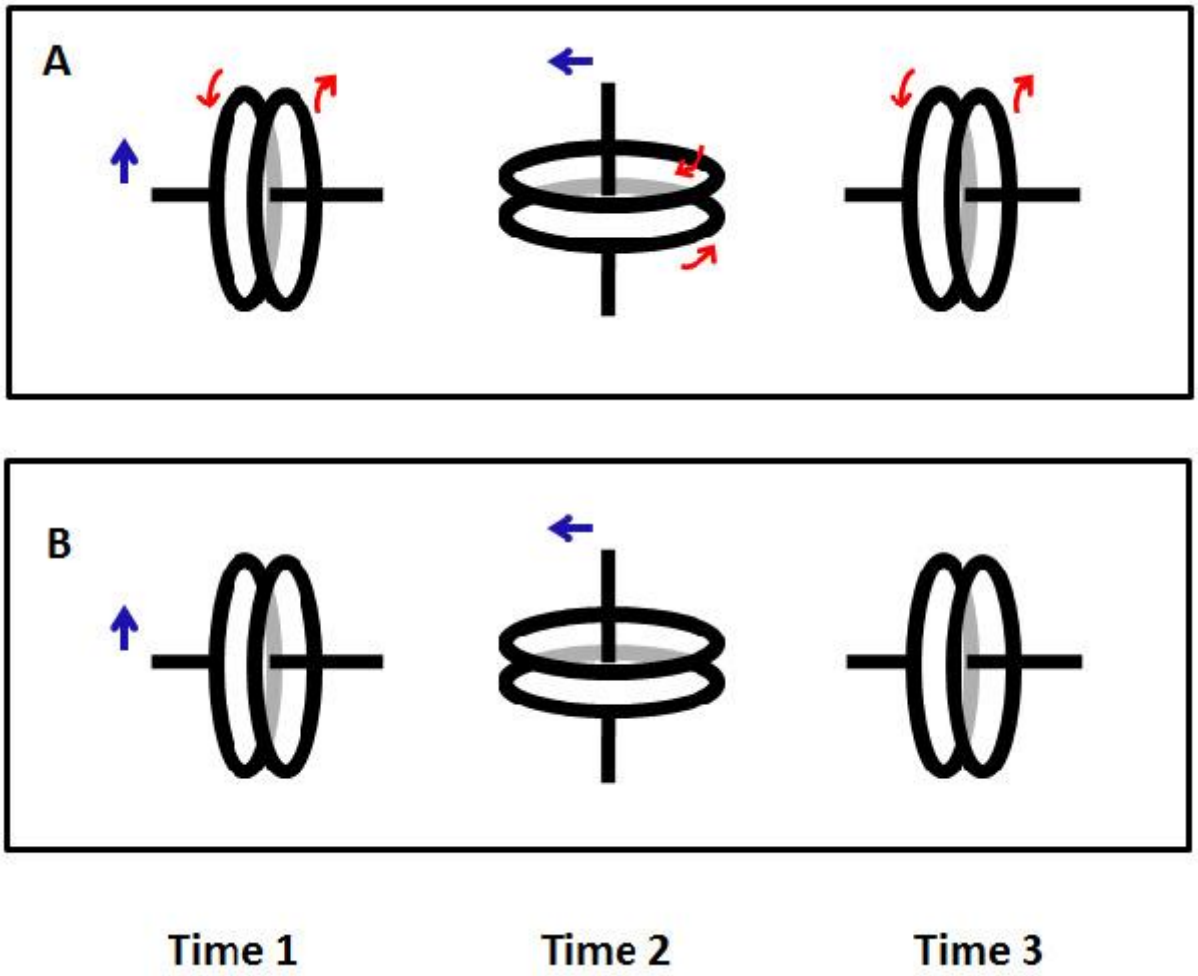
***42. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



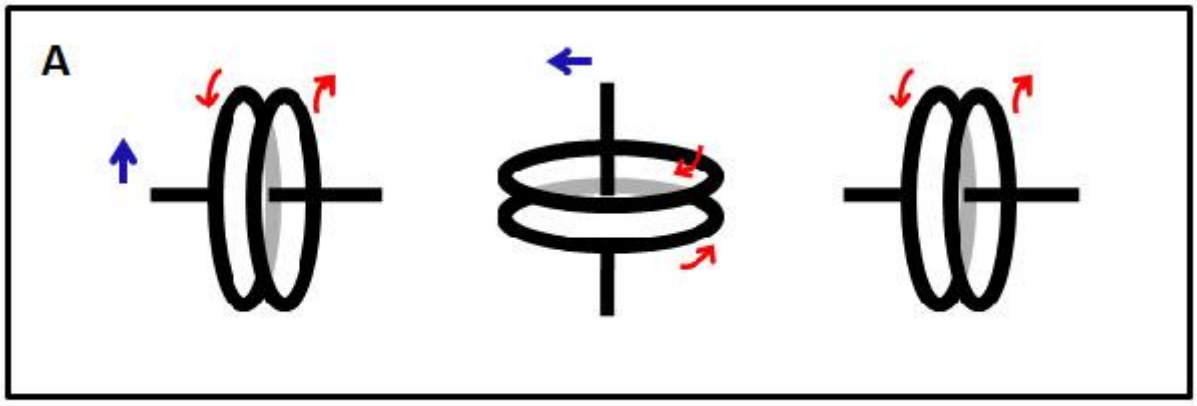
***43. During which sequence would tilting the axle result in the most resistive force?**

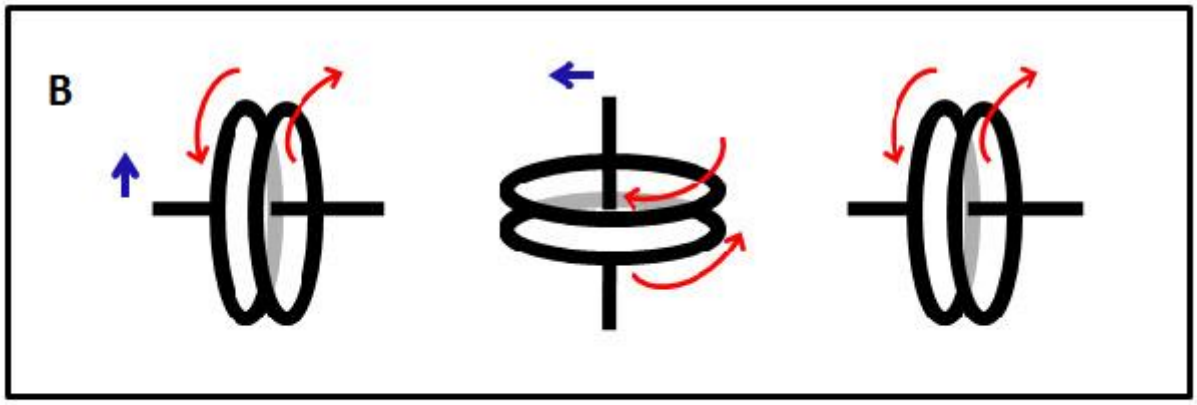
- [ ] A
- [ ] Same
- [ ] B



***44. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B

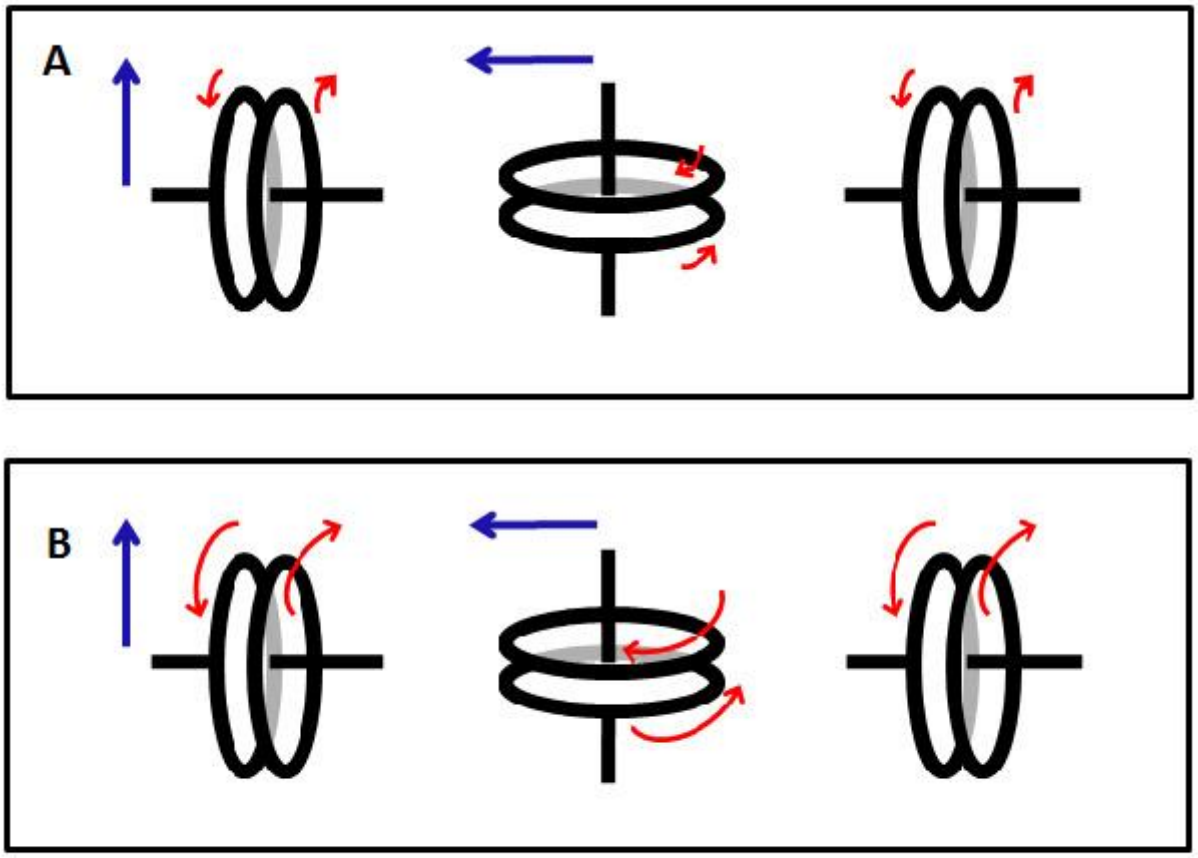




Time 1 Time 2 Time 3

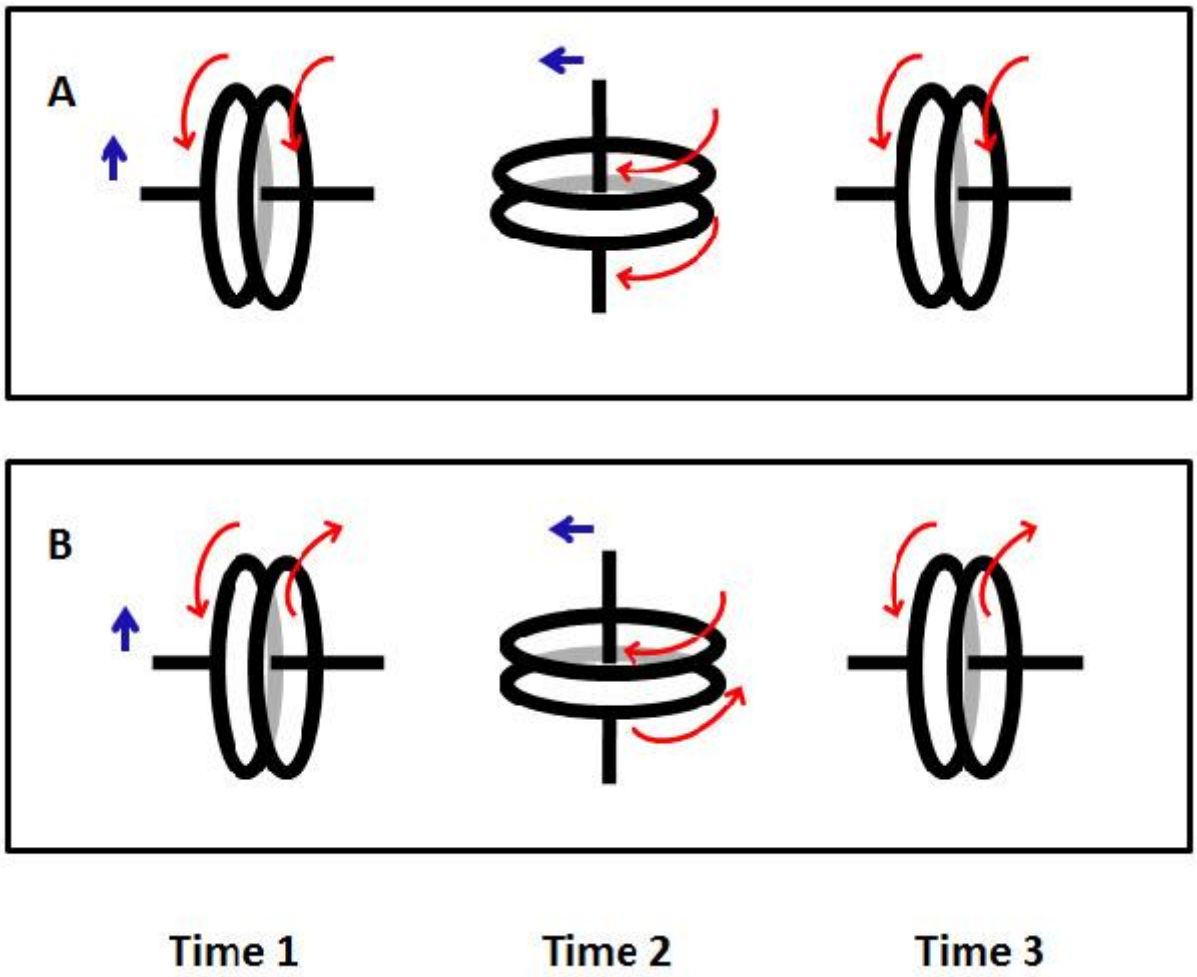
***45. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



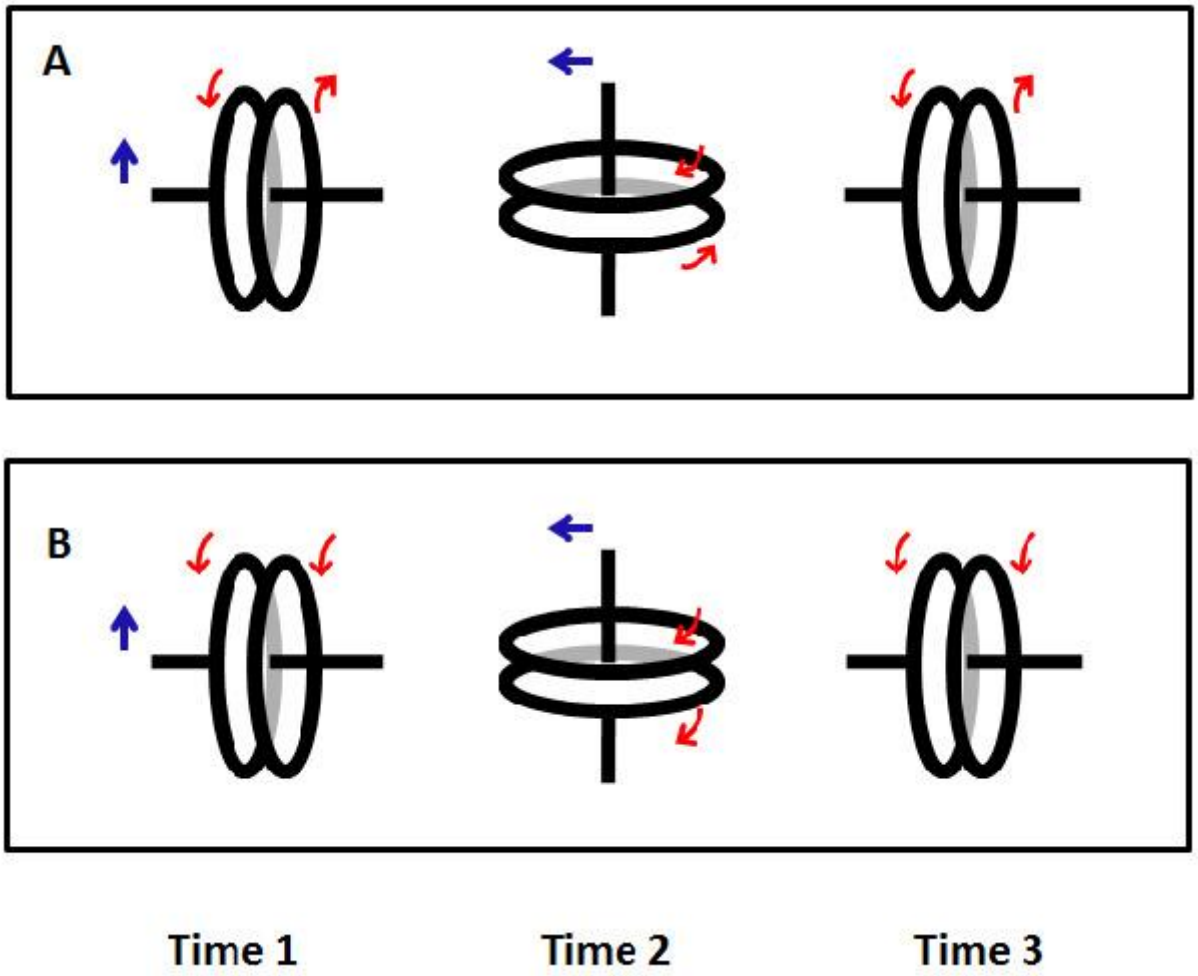
***46. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



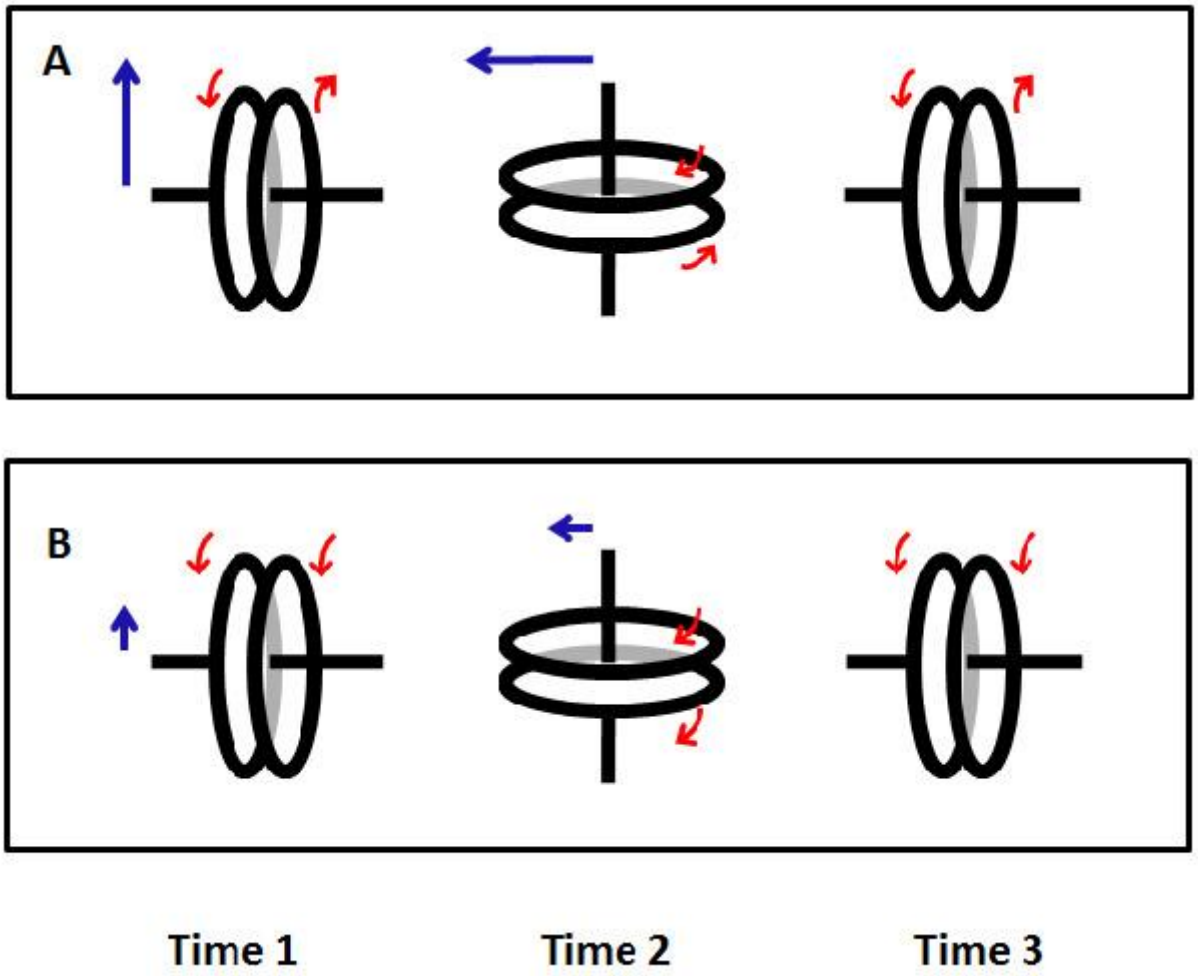
***47. During which sequence would tilting the axle result in the most resistive force?**

- ☐ A
- ☐ Same
- ☐ B



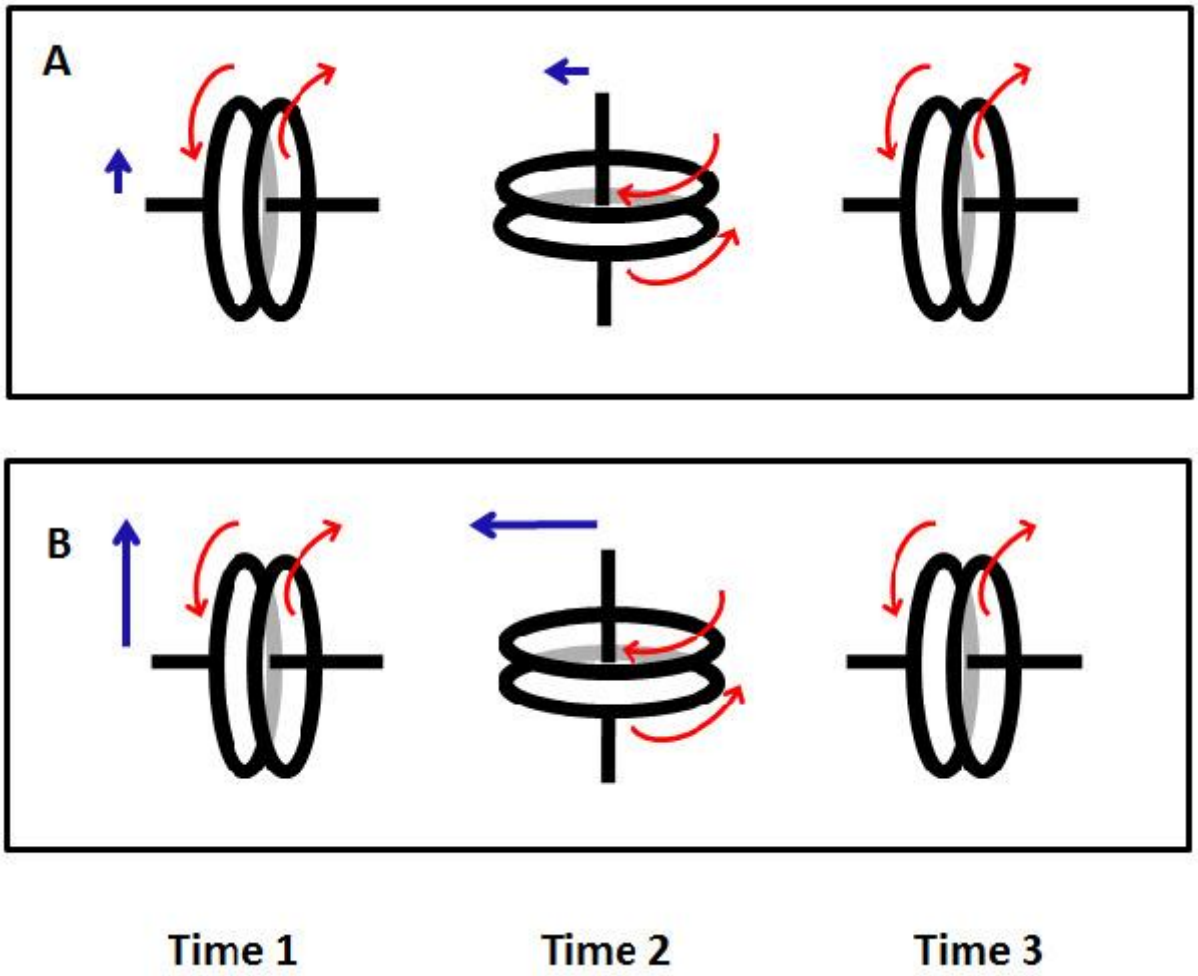
***48. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



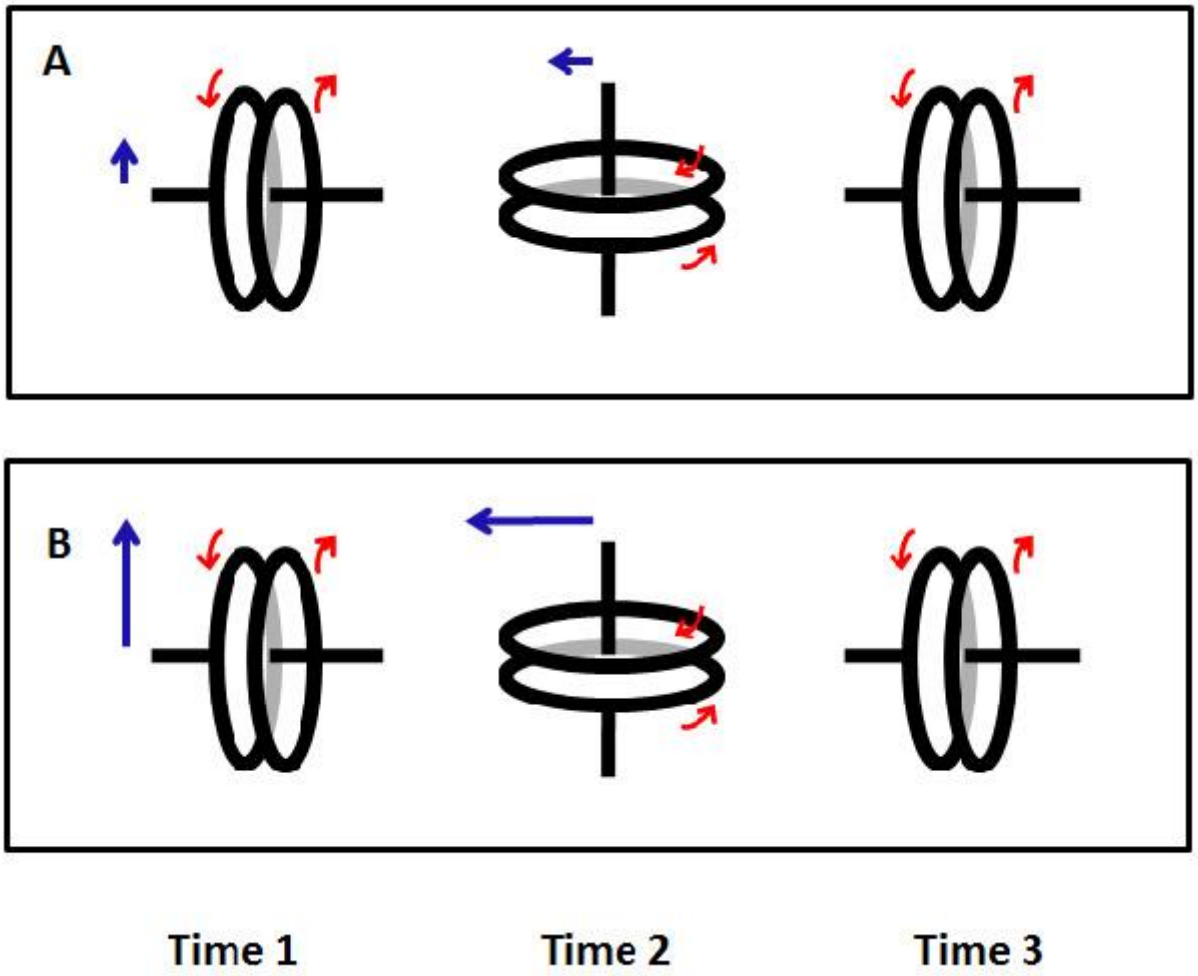
***49. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



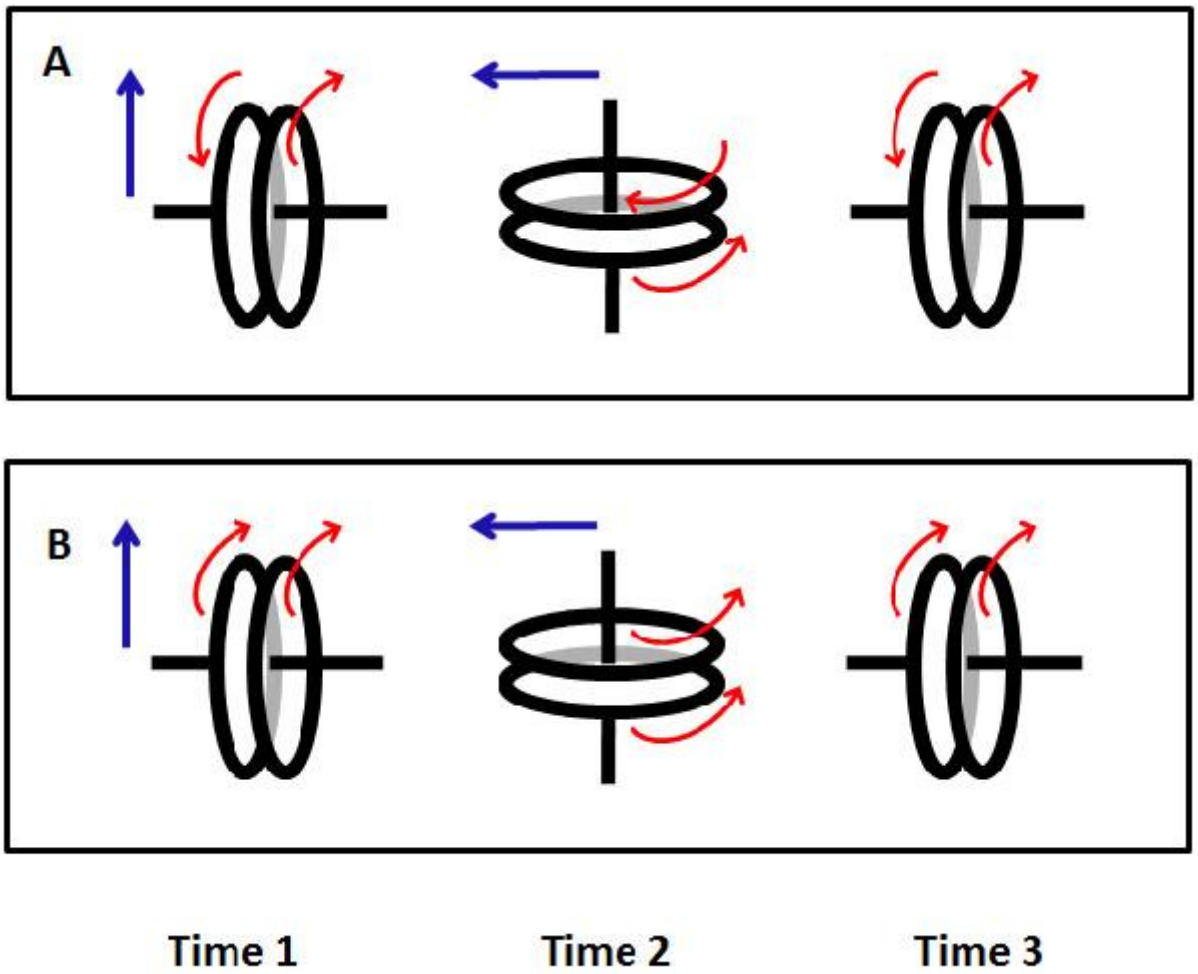
***50. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



***51. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B



***52. During which sequence would tilting the axle result in the most resistive force?**

- [ ] A
- [ ] Same
- [ ] B