TRAILBLAZER

1. Observe the ride from the front of the ride. Sketch the path followed by a person sitting where you sat. What is the shape of the path?

2. Where would a person have to sit in order for their path to be a circle?

3. The Trailblazer holds either 60 children or 40 adults or a combination of the two. The ride itself is 35 ft. wide. There are 2 aisles that are about 3 ft. wide. Calculate the amount of space allotted for each adult and child. (Round to the nearest whole number).

4. The length of the ride is 23 minutes. If it takes another 3 minuets to load and unload passengers, which is the maximum number of adults that could ride in one hour?

4a. What is the maximum number of children that could ride in one hour?

5. There are 32 adults on the ride. How many children will be able to ride?

6. There are 25 children on the ride. How many adults will be able to ride?

7. There are 50 people on the ride. How many adults and children are on the ride?

8. Observe the ride from the front of the ride. Sketch the path followed by a person sitting where you sat. Is the path a perfect circle? Why or why not?

9. Briefly describe, compare and contrast the sensations felt at the following points on the ride when the ride is at full speed. Are the sensations in any way explained by the accelerometer readings?

Clock Position	Description	Accelerometer Reading
12:00		
1:30		
3:00		
4:30		
6:00		
7:30		
9:00		
10:30		

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10. What is the direction of each of the accelerations above?

11. Consider the positions described above. When the ride is going "full speed", at what point:

    a. Are you going fastest?_____ b. Are you going slowest?_____
    c. Do you feel heaviest?_____ d. Do you feel the lightest?_____

12. Are your answers for 4 c and d consistent with your accelerometer readings?