

STEEL COASTERS — Qualitative

Comparing Vortex, Demon and Flight Deck

Begin by filling in the chart below for all three of the coasters. Be sure to come up with at least three other points of comparison.

Quantity	Vortex	Demon	Flight Deck
# of passengers per train			
# of trains per hour			
# of passengers per hour			
height of initial hill			
g-force at bottom of first hill			
radius of vertical loop			
maximum g-force experienced			
location of maximum g-force			
direction of corkscrew			

Qualitative Questions

- Carefully describe the features that distinguish each ride from the others. In other words, what makes each of these rides unique?

- Use the data and calculations from the table above to compare and contrast the three coasters, examining such factors as the sizes of forces, speeds, and so on. Use appropriate physics terms to explain why the acceleration data weren't necessarily the same for all three rides at similar locations.