

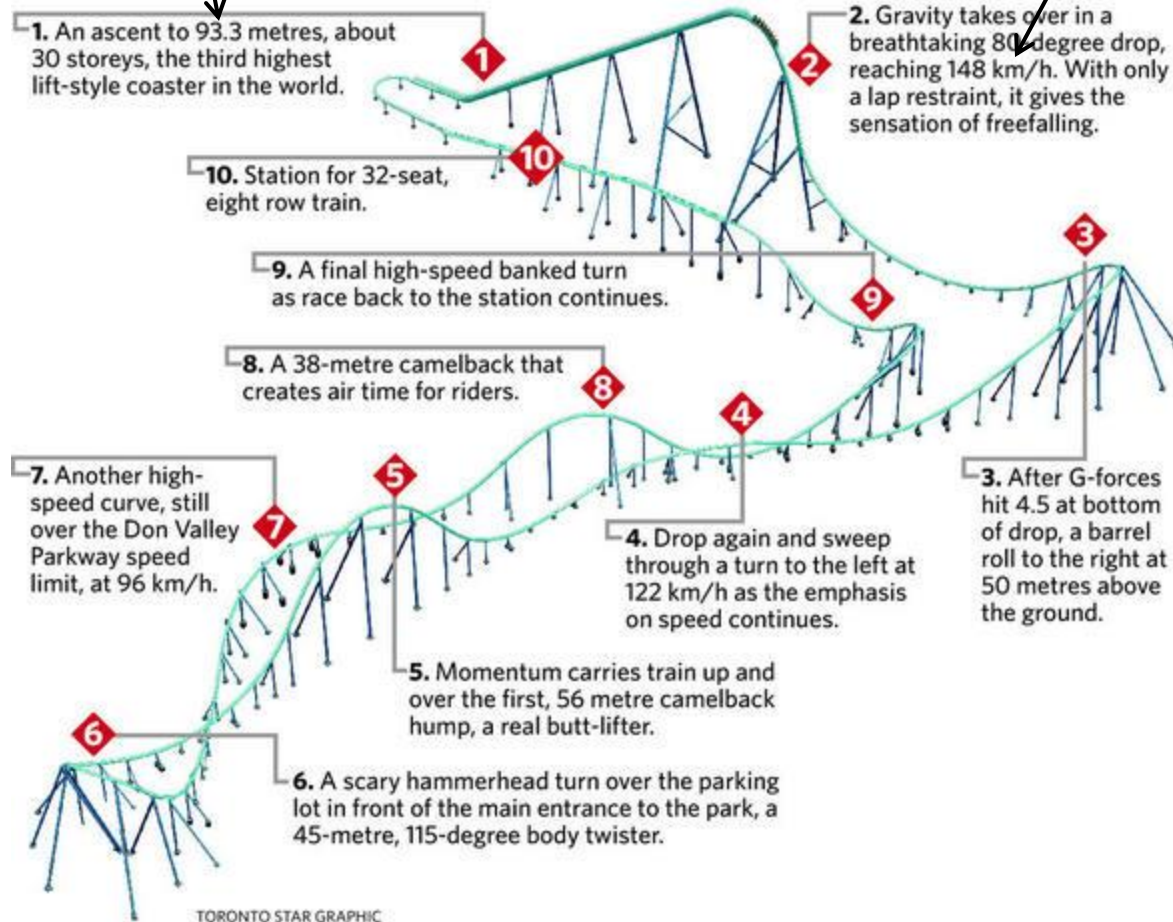
Conservation of Energy - Leviathon

Name: _____ Date: _____

Height of the first drop...

Maximum speed at bottom...

Leviathan's monster thrills



1. Validate or refute the claim that a maximum speed of 148 km/h is reached after the first drop.
2. Assuming no friction loss, calculate the height of hill 4.
3. Assuming no friction loss, calculate the speed at the top of hill 8.
4. Assuming no friction loss, calculate speed at the top of hill 6.
5. Explain why hill 8 creates “air time” while hill 5 is only a “butt-lifter.”
6. Explain how your calculations would change if friction and air resistance were not ignored.