

Fun With Physics: COLOSSUS

Colossus the Fire Dragon is currently one of the most popular roller coasters at Lagoon. It is **870 m** long. The height of the first hill is **26 m**. The loops are both **20 m** tall.



- a) How long does it take for a train to complete a run, not counting the time to load and unload passengers?

- b) What is the average velocity of the train, measured in meters per second?

- c) How does the height of the loop compare to the maximum height of the roller coaster?

- d) Would anything catastrophic happen if the loop were taller than the first hill? Why?