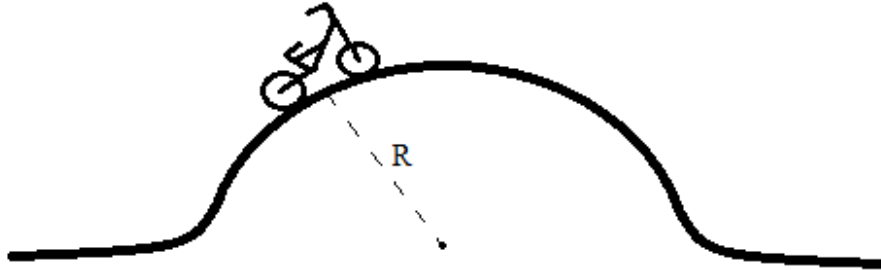


Centripetal Force Ranking

A group of six kids are riding their mountain bikes across a bumpy trail that contains an unavoidable semi-circular hill. For the instant when the bikes are at the peak of the hill, the speed of each bike, v , as well as the force of the hill on each bike, F , is provided below. The radius of the hill, R , is 5 m.



Bike	v	F
A	4.0 m/s	400 N
B	2.0 m/s	400 N
C	5.0 m/s	500 N
D	3.0 m/s	300 N
E	3.0 m/s	600 N
F	1.5 m/s	600 N

Rank the mass of each bike (including the kid) from most massive to least massive:

Most 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ Least

Justify your ranking: