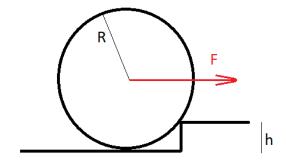
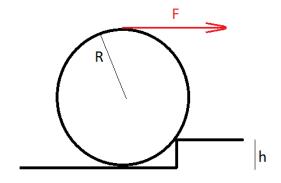
## Here's a classic:

Consider a wheel butted up against a kerb of height h. We want to raise the wheel up over the kerb by applying a horizontal force, F, to the center of the wheel.

a) What is the minimum force necessary?



b) Suppose instead the force were applied to the top of the wheel. What would be the minimum force in that case?



NOTE: There is a slight complication here. We'll discuss it after you turn in your solution.