MATH 6 – RECITATION WORKSHEET 6
9 MARCH 2012

Today we'll think a little about shifting gears on a bicycle. Suppose you have a bicycle with wheels of radius 12 inches, and wheel sprocket with radius 2 inches. Your gears, which are connected to the wheel sprocket by a chain, have radii 4 inches and 6 inches, respectively.

1. How many times would you need to pedal (that is, make the gear make a full revolution) to go 120 feet if you're using the 4-inch gear?

2. How many times would you need to pedal to go 120 feet if you're using the 6-inch gear?

3. You want to cycle up College Street from downtown. Which gear is better and will make it easier to pedal?