Penny Farthing

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The 'ordinary bicycle', or, as it became known, the penny farthing, was a huge improvement on the velocipede, or 'boneshaker', having an even more pronounced difference in wheel sizes. This enabled it to be ridden in relative comfort (although a bumpy road could still cause you to go flying off the front).

The front wheel of this penny farthing is 55 inches in diameter, and the back is 14 inches.

Using the measurements above, calculate the circumference of each wheel.

| | Front: |
|--|-----------------------------|
| | Back: |
| There are 63360 inches in a mile. Calculate how many rotate over a mile-long cycle ride. | times the front wheel would |
| How many revolutions would the back wheel have mad | le over this distance? |

Extension: The Earth has a radius of 4000 miles. How many revolutions would the wheels of the penny farthing make if you cycled around the equator?



| Front: | |
|--------|--|
| Back: | |