## **Historic Bicycle**

*The circumference of a circle,*  $C = \pi d$ *, where d is the diameter* Basil saw a strange old bicycle at the museum. It had one very big wheel and one very small one. It was called an 'Ordinary' or a 'Penny Farthing'. At home Basil looked it up on the internet and found that the big wheel could have a 52 inch diameter and the small wheel could have an 18 inch diameter. 1. What is the circumference of the big wheel? Show how you figured it out. inches 2. How far would you travel in one turn of the big wheel? Give your answer in feet and inches. Show how you figured it out. feet inches 3. How many times must the cyclist turn the big wheel to travel 1 mile? A mile is 1760 yards. Give your answer to the nearest 10 turns. Show how you figured it out.

4. How many times does the small wheel turn when the cycle travels 1 mile? Show how you figured it out.