

Name: _____

Section: _____

Math 120AB

Quiz 5

February 19, 2004

Show all work for full credit.

1. (5 points) You are riding a bicycle. The bicycle's wheels have a radius of 27 inches. The front sprocket has a radius of 7 inches. The rear sprocket has a radius of 2 inches. If you pedal at a rate of 96 rpm, how fast will you go (in miles per hour)?

2. (5 points) From where you stand, Godzilla appears to be 40° tall. That is, the line to the top of his head from where you stand makes an angle of 40° with the horizontal. If Godzilla was 10 feet taller, he'd appear 42° tall. How tall is Godzilla?