

Name: _____

Section: _____

MATH 120A

QUIZ 5

May 8, 2003

You may use a calculator to complete this quiz. No notes please. Show all work.

1. (6 points) Let $f(x) = \frac{(3x - 5)(x + 4)}{x(x - \pi)(x + \pi)} = \frac{3x^2 + 7x - 20}{x^3 - \pi^2x}$. Find each of the following.

(a) the zero(s) of $f(x)$

(b) the horizontal asymptote of $f(x)$

(c) the vertical asymptote(s) of $f(x)$

(over)

2. (4 points) On a bicycle, you pedal turning the front sprocket (whose radius is 4 inches) at a rate of 190 RPM while the rear wheel spins at 422 RPM. What is the radius of the rear sprocket?

