Average Velocity/Rate of Change/Secant Lines

1. What is the average velocity of a car that goes 200 km after 6 hours?

2. What is the average velocity of a car that has travelled $3x^2 + x$ km after x hours, between 2 and 3 hours?

3. What is the slope of the secant line to

$$f(x) = x^2 + 1$$

between $x = 1$ and $x = 5$?

4. What is the average change in the function

$$f(x) = \frac{x}{2 + x}$$

from $x = -1$ to $x = 3/2$?

5. What is the average change in the function $f(x) = x^3$ from
(a) $x = 0.8$ to $x = 1.2$?
(b) $x = 0.9$ to $x = 1.1$?
(c) $x = 0.99$ to $x = 1.01$?
(d) What does this tell you about the instantaneous velocity at $x = 1$?