

Section 9
Croasdale
Quiz Problems

1. The total of the world marine catch was 17 million tons of fish in 1950, and 91 million tons in 1995. What was the average rate of change of the marine catch during these years? Give units and interpret your answer.
2. Draw a possible graph of the distance I am from my home under the following circumstances:
 - a) Things were fine until I had a flat tire.
 - b) I started out calmly but speeded up when I realized I was going to be late.
3. A car rental company offers cars at \$40 per day and \$.15 per mile. A competitor's cars are \$50 per day and \$.10 per mile.
 - a) Write an equation for each.
 - b) How should you decide which company is cheaper?
4. Simplify: $9^{-3/2}$
5. Draw a possible function f with $\lim_{x \rightarrow \infty} f(x) = 1$ and $\lim_{x \rightarrow -\infty} f(x) = \infty$.
6. $S = 0.01w^{0.5}h^{0.75}$, where S is the surface area in m^2 , w is the weight in kg, and h is the height in cm. What is the weight of the person when the height is 180 cm and the surface area is 1.5 m^2 ?
7. A skull discovered in a dry area has 15% of the original amount of bone remaining. The quantity of bone remaining deteriorates at an exponential rate and is given by the formula $Q = Q_0 e^{-0.0021t}$. Estimate the age of the skull.