

Quiz 2

1. Consider the following table.

Year	Population (millions)	Rate of Change
1900	3	—
1910	6	0.3
1920	8	
1930	13	0.5
1940	19	0.6
1950	17	-0.2
1960	24	0.7

Note: The Rate of Change column shows the average rate of change over the previous 10 years.

a. Compute the value for the Rate of Change column in 1920.

b. Estimate the population in 1932.

c. Without graphing, determine if this is a linear function. Explain your answer.

2. A particular junior college charges \$200 per credit hour in addition to \$450 in registration fees (regardless of the enrolled hours).

a. Write an equation $F(h)$ that determines the total fees for a student enrolled in h credit hours.

b. What is a reasonable domain for F ?

c. Use your formula to determine the cost for a student enrolled in 15 credit hours.

d. A student received a bill for \$4050. For how many hours is she enrolled?

3. Graph the piecewise function

$$f(x) = \begin{cases} 1 + 2x & \text{if } x \leq 3 \\ 7 - \frac{1}{2}x & \text{if } x > 3 \end{cases}$$

