Quiz 1.1 – Average Rate of Change

1. (1 pt) alfredLibrary/AUCI/chapter1/lesson1/quiz/question4.pg
Suppose that the graph of the function $y = f(x)$ passes through the points $(-2, 9)$ and $(-1, 4)$. On the interval $[-2, -1]$,

the net change in x is $\Delta x =$ _____,

the net change in y is $\Delta y =$ _____, and

the average rate of change in y is $\Delta y / \Delta x =$ _____.

2. (1 pt) alfredLibrary/AUCI/chapter1/lesson1/quiz/question5.pg
Let $S(t)$ be the amount of sales in dollars by a small business during the t-th week after January 1. Suppose sales on January 1 were 9666 dollars and sales 6 weeks later were 5496 dollars. Compute the following over the time interval $[0, 6]$. Enter the units by typing the full words or phrases (e.g., feet per second).

(a) $\Delta t =$ _____ Units? _____

(b) $\Delta S =$ _____ Units? _____

(c) $\Delta S / \Delta t =$ _____ Units? _____

(d) Use the average rate of change in part (c) to estimate the sales during the 4th week after January 1. That is, estimate $S(4)$.

$S(4) \approx$ _____ Units? _____