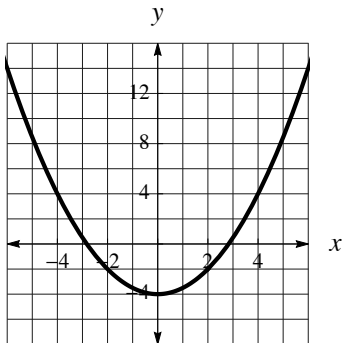


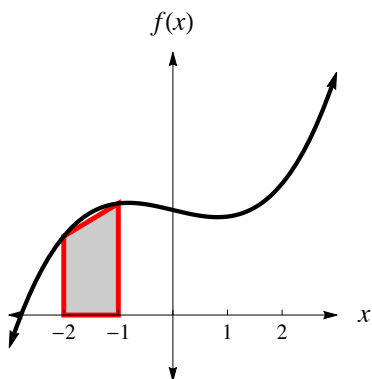
Quiz 3: Version C

First & Last Name: _____ Class: _____

1. Below, $f(x) = \frac{1}{2}x^2 - 4$ is graphed. Sketch a secant line that intercepts the parabola at $x = -4$ and $x = 2$. What is the slope of this secant line?
Honors: What is the equation of the secant line?



2. Using trapezoids, approximate the area under the curve of $f(x) = \frac{1}{2}x^3 - x + 8$ for $-2 \leq x \leq 2$. The first trapezoid has been drawn for you. The area of a trapezoid is $A = \frac{1}{2}(a + b)h$.
Honors: What would the area approximation be if right endpoint rectangles were used instead?



3. The distance an object is from its starting point (position, p , in meters) as a function of time, t (in seconds), is given by the equation $p(t) = 2t^3 - 12t^2 + 14t$ (also see the graph below).
 i) What is the object's position at $t = 2$ seconds?
 ii) What was the object's displacement between $t = 1$ and $t = 4$ seconds?
 iii) What distance does the object travel between $t = 1$ and $t = 4$ seconds?
 iv) What is the average velocity of the object between $t = 1$ and $t = 4$ seconds?
Honors: What is the average velocity of the object on the interval $0.3 \leq t \leq 3.3$? Your answer should be accurate to two decimal places.

