

**Name:**

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This quiz covers: 1.7, 2.1 and 2.2.

**Directions:** Complete all questions and **show all applicable work.** Partial credit will be given. All questions are equally weighted.

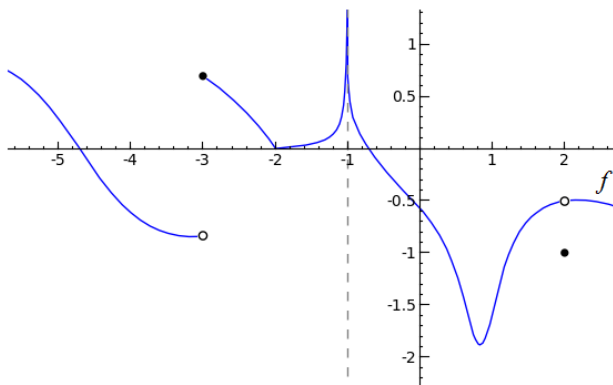
1.) Let  $x = 3 \sin t$  and  $y = 2 + \cos t$ . Sketch a parametric curve of  $(x(t), y(t))$ .

2.) Given the following table that describes the position of a cyclist, find the average velocity of the cyclist at  $t=3$  seconds. Describe how you derived your answer.

t (seconds)	0	1	2	3	4	5
s (meters)	0	1.4	5.1	10.7	17.7	25.8

Name: \_\_\_\_\_

3.)



Using the graph above, compute the following:

- a.  $\lim_{x \rightarrow 2^+} f(x)$
- b.  $\lim_{x \rightarrow 2^-} f(x)$
- c.  $\lim_{x \rightarrow 2} f(x)$
- d.  $f(2)$