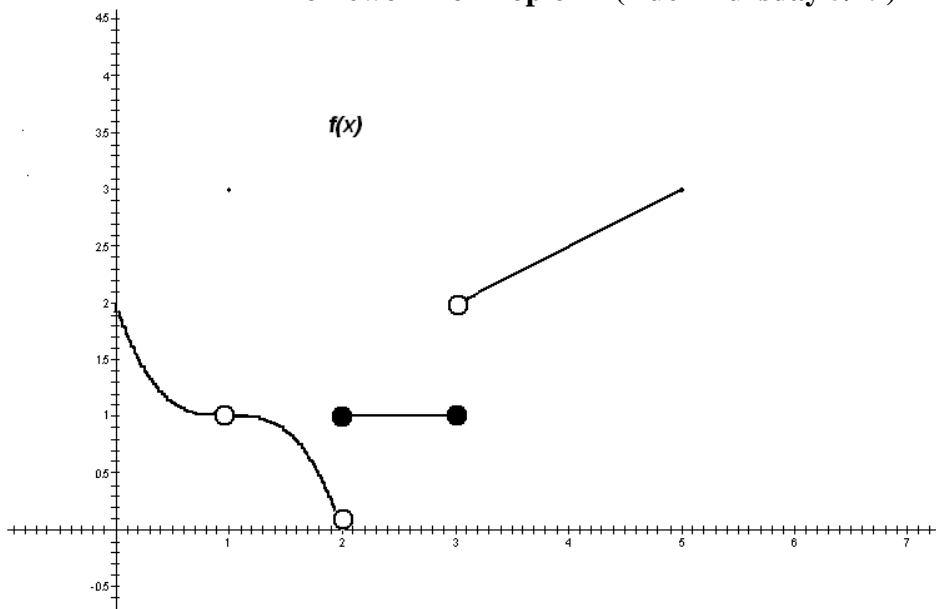


Homework for Topic 12 (Due Thursday 5/19)



1. Find the value of each of the following. If the value does not exist or is undefined, write DNE.

a. $\lim_{x \rightarrow 1^+} f(x) =$

b. $\lim_{x \rightarrow 1^-} f(x) =$

c. $\lim_{x \rightarrow 1} f(x) =$

d. $f(1) =$

e. $\lim_{x \rightarrow 2^+} f(x) =$

f. $\lim_{x \rightarrow 2^-} f(x) =$

g. $\lim_{x \rightarrow 2} f(x) =$

h. $f(2) =$

i. $\lim_{x \rightarrow 3^+} f(x) =$

j. $\lim_{x \rightarrow 3^-} f(x) =$

k. $\lim_{x \rightarrow 3} f(x) =$

l. $f(3) =$

2. True or False? Explain each answer.

a. $f(x)$ is continuous at $x = 1$

b. $f(x)$ is differentiable at $x = 1$

c. $f(x)$ is continuous at $x = 2$

d. $f(x)$ is differentiable at $x = 2$

e. $f(x)$ is continuous at $x = 3$

f. $f(x)$ is differentiable at $x = 3$

g. $f(x)$ is continuous at $x = .5$

h. $f(x)$ is differentiable at $x = 4$