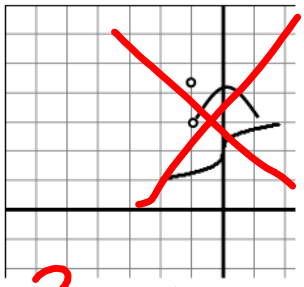
CALCULUS Name: _____

WORKSHEET L.1-1

Refer to the graph to find each limit, if it exists:

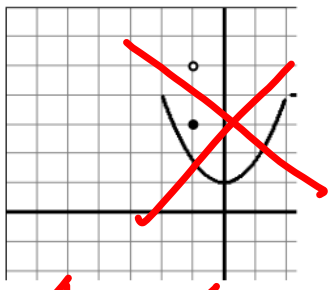
a. $\lim_{x\to 2^-} f(x)$ **b.** $\lim_{x\to 2^+} f(x)$ **c.** $\lim_{x\to 2} f(x)$ **d.** $\lim_{x\to 0^-} f(x)$ **e.** $\lim_{x\to 0^+} f(x)$ **f.** $\lim_{x\to 0} f(x)$

1.



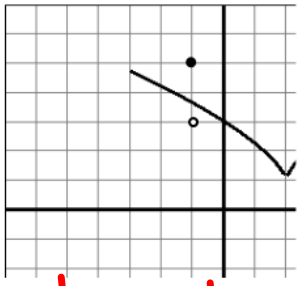
a. 3 b. 1 c. dne
d. 2 e. 2 f. 2

2.



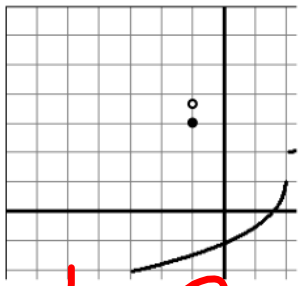
a. 4 b. 4 c. 4
d. 1 e. 1 f. 1

3.



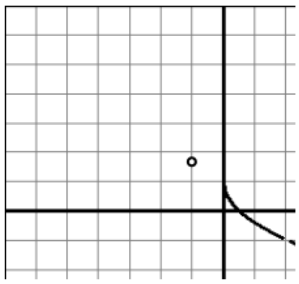
a. 1 b. 1 c. 1
d. 3 e. 3 f. 3

4.



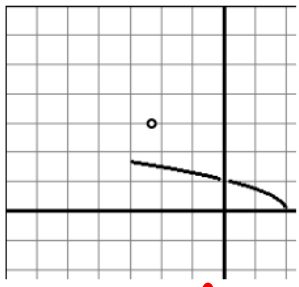
a. 1 b. 2 c. dne
d. -1 e. -1 f. -1

5.



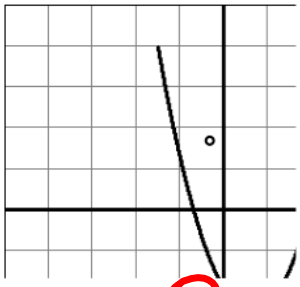
a. -1 b. -1 c. -1
d. dne e. 1 f. dne

6.



a. 0 b. dne c. dne
d. 1 e. 1 f. 1

7.



a. $\lim_{x\to 2} f(x) =$ 0

b. $\lim_{x\to 0} f(x) =$ -2

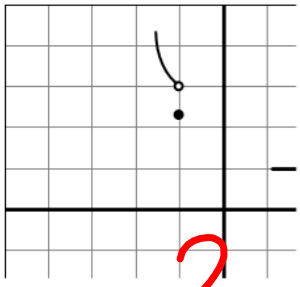
c. $f(2) =$ und.

8.

a. $\lim_{x\to 1} f(x) =$ 1

b. $\lim_{x\to 0} f(x) =$ 2

9.



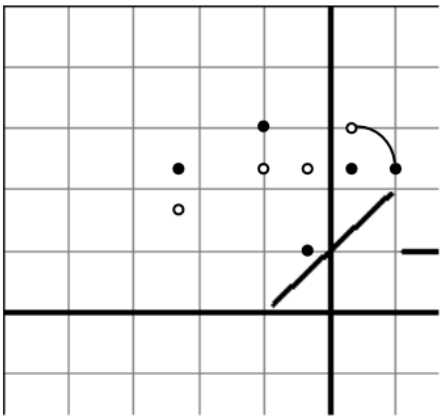
a. $\lim_{x\to 1^-} f(x) =$ 2

b. $\lim_{x\to 1^+} f(x) =$ 1

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

d. $f(1) =$ 1

10.



True or false?

F a. $\lim_{x\to 2} f(x) = -1$

F b. $\lim_{x\to -1^+} f(x) = 1$

T c. $\lim_{x\to 1^+} f(x) = 1$

T d. $\lim_{x\to 2} f(x)$ exists

F e. $\lim_{x\to 3} f(x) = 1$

T f. $\lim_{x\to 1} f(x)$ DNE

T g. $\lim_{x\to 3^-} f(x) = 1$

T h. $\lim_{x\to 0^+} f(x) = \lim_{x\to 0^-} f(x)$

T i. $\lim_{x\to 0} f(x)$ exists

T j. $\lim_{x\to 2} f(x) = 1$

T F k. $\lim_{x\to c} f(x)$ exists at every c on the interval (-1,1) onoside

T l. $\lim_{x\to c} f(x)$ exists at every c on the interval (1,3)

$x \to -1$ $(x \to 1)$

$x \to 0$