

1. For the function  $f$  whose graph is shown, find  $\lim_{x \rightarrow -9^+} f(x)$ .

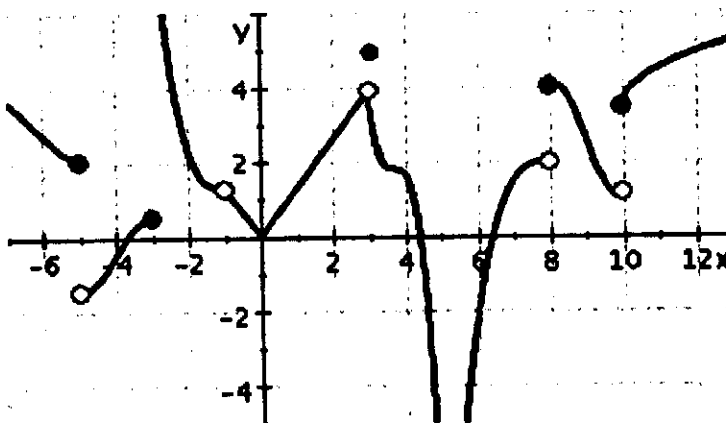


- a)  $-9$
- b)  $1$
- c)  $-\infty$
- d)  $0$
- e)  $\infty$

2. Determine  $\lim_{x \rightarrow 0} \frac{x-1}{x^2(x+7)}$ .

- a)  $-\infty$
- b)  $\infty$
- c)  $\frac{1}{7}$
- d)  $-\frac{1}{7}$
- e)  $0$

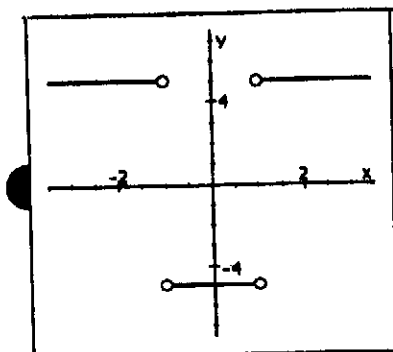
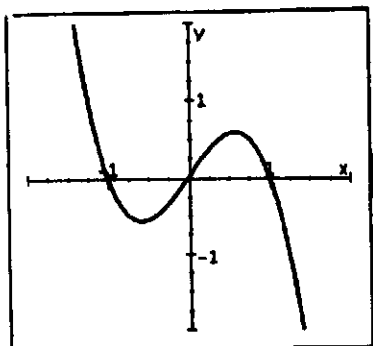
16. (7 pts) Determine the points of removable discontinuity, jump discontinuity and infinite discontinuity for the following graph.



- a) jump discontinuities:
- b) removable discontinuities:
- c) infinite discontinuities:

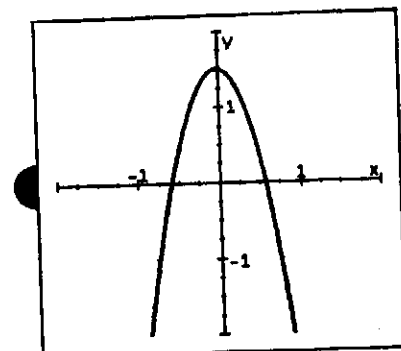
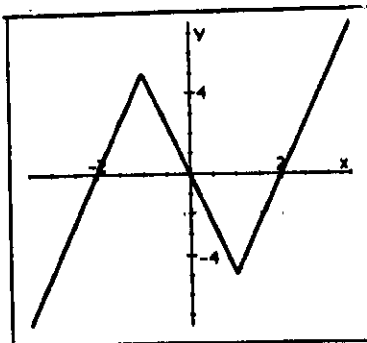
17. (4 pts) Match the graph of each function on the left with the graph of its derivative to the right.

(A)



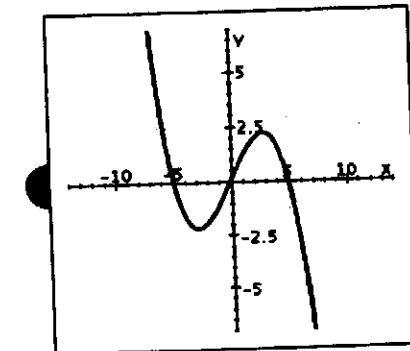
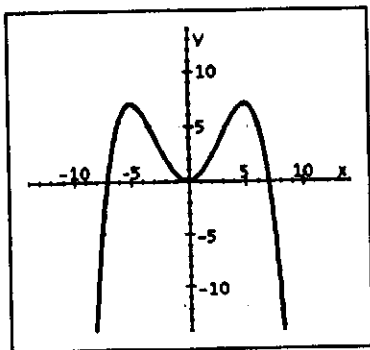
I

(B)



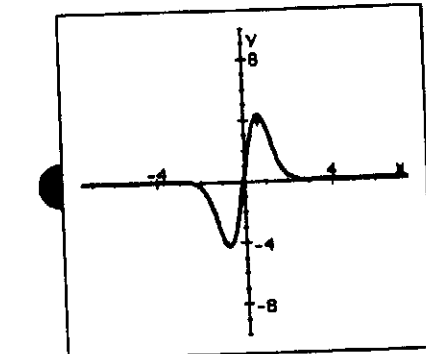
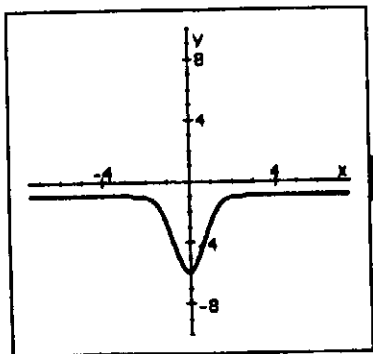
II

(C)



III

(D)



IV