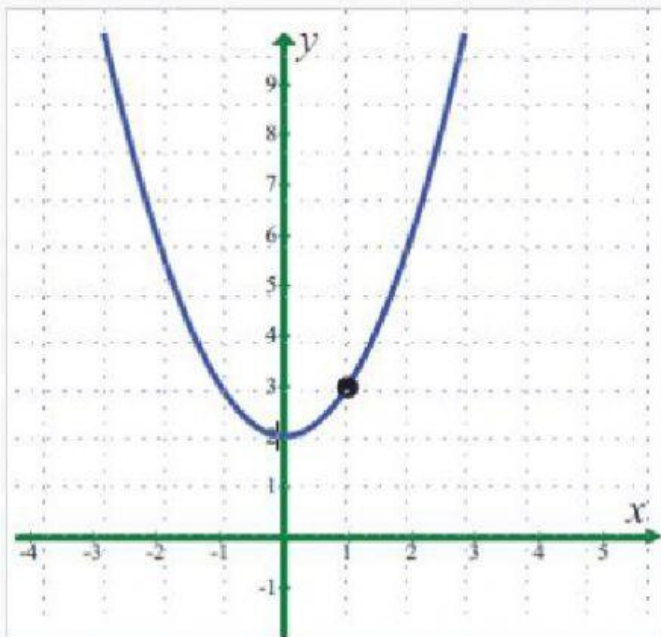
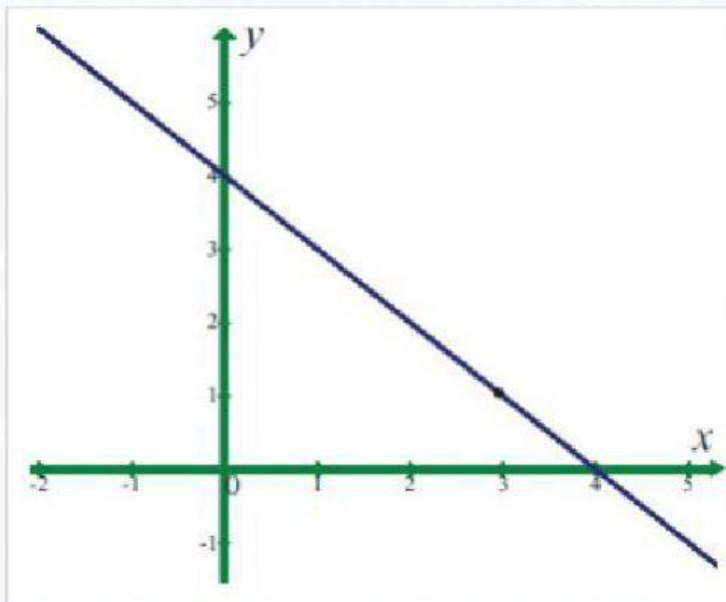


$$\lim_{x \rightarrow 1} (x^2 + 2)$$

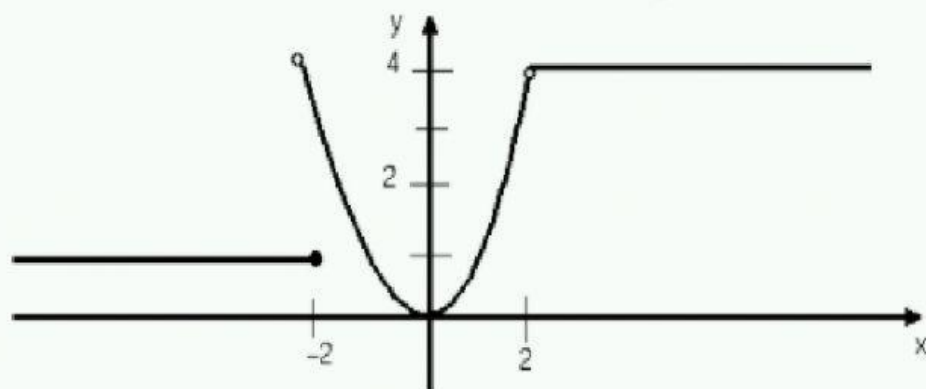


$$\lim_{x \rightarrow 3} (4 - x)$$



Limits: Exercise One

Use the graph of the function $y = f(x)$ below to find the following limits



Exercise 1

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

(b) $\lim_{x \rightarrow 2^+} f(x)$

(c) $\lim_{x \rightarrow 2} f(x)$

Exercise 2

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

(b) $\lim_{x \rightarrow -2^+} f(x)$

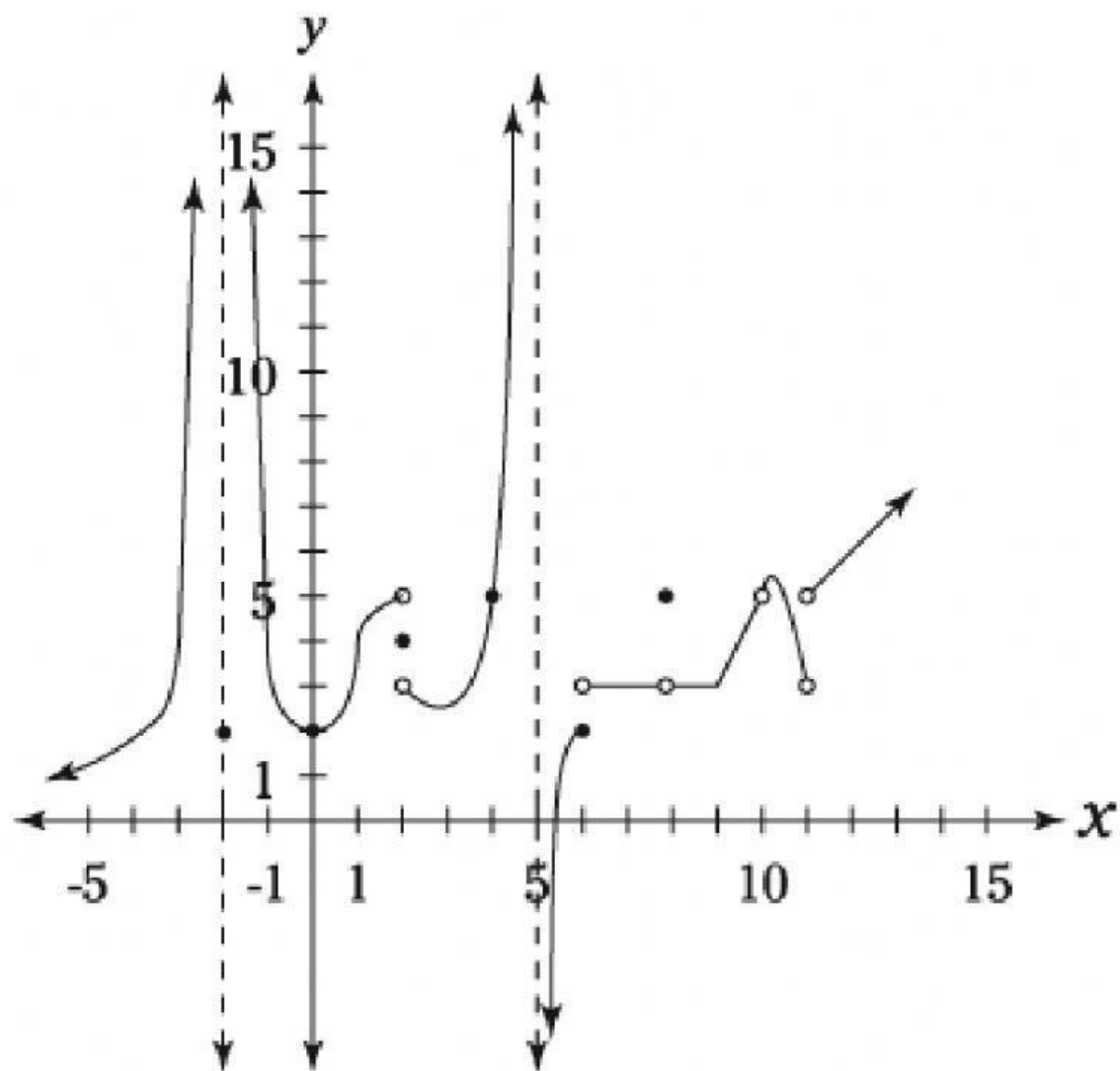
(c) $\lim_{x \rightarrow -2} f(x)$

Exercise 3

(a) $\lim_{x \rightarrow \infty} f(x)$

(b) $\lim_{x \rightarrow -\infty} f(x)$

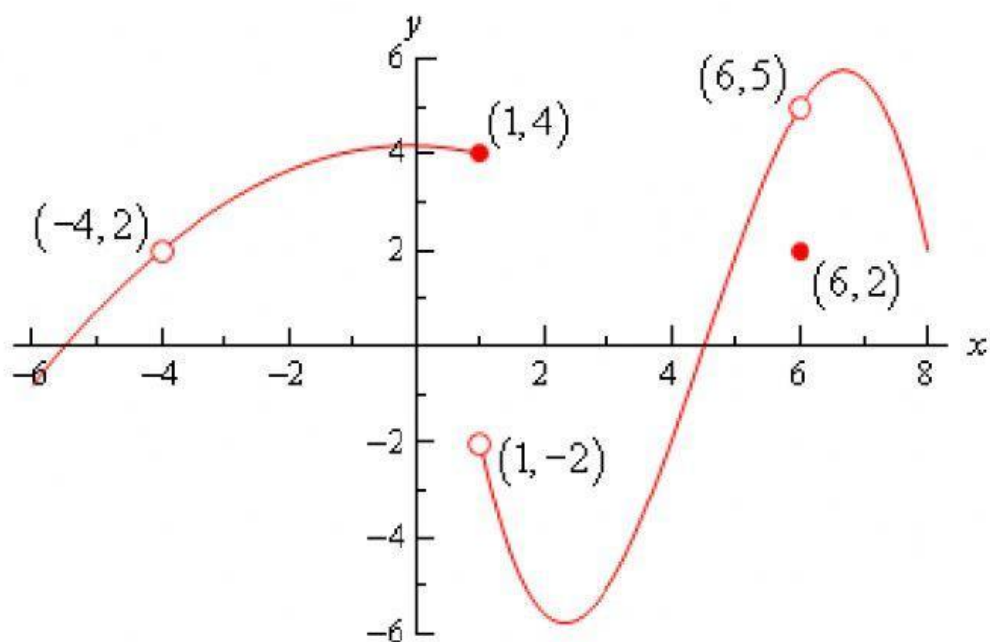
(c) $\lim_{x \rightarrow 0} f(x)$



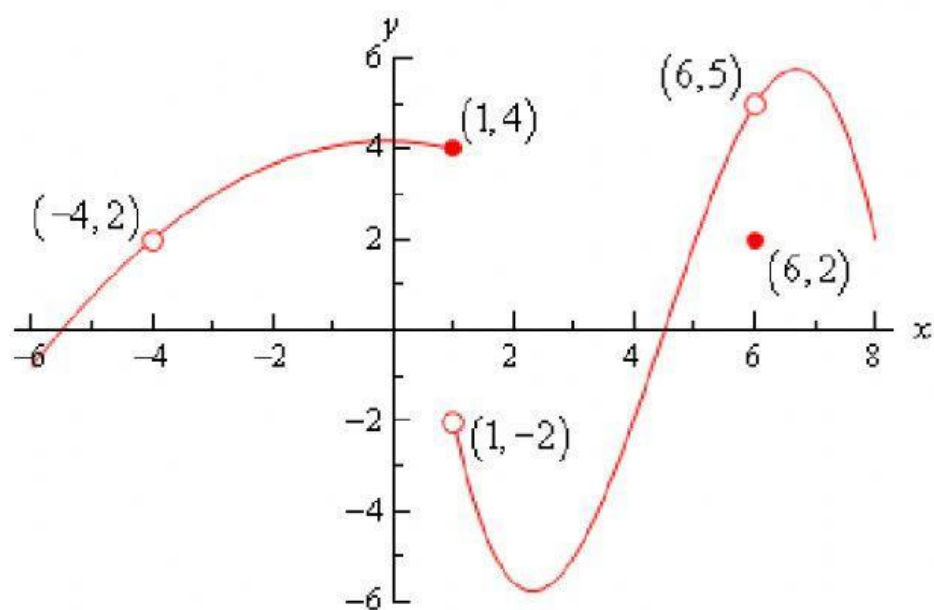
A function with many discontinuities.

Find the $\lim_{x \rightarrow 8} f(x)$

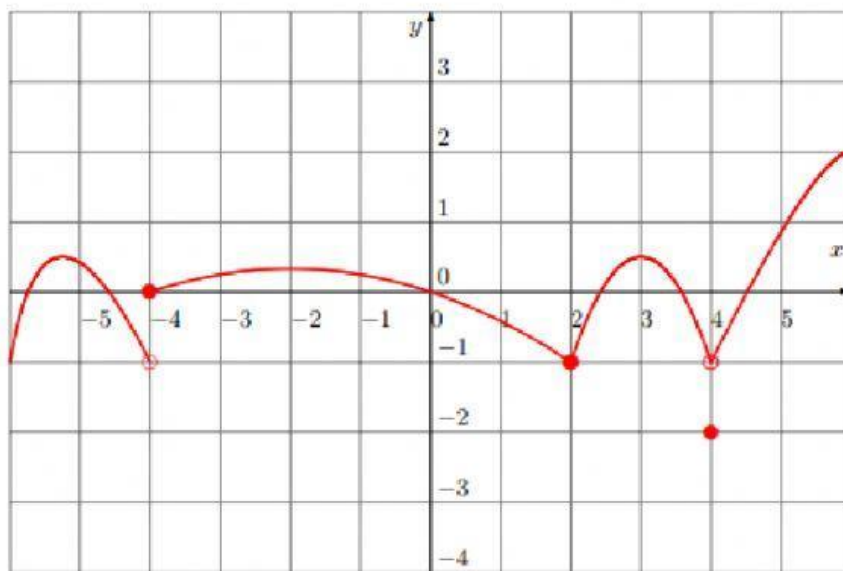
Find the $\lim_{x \rightarrow 2^-} f(x)$



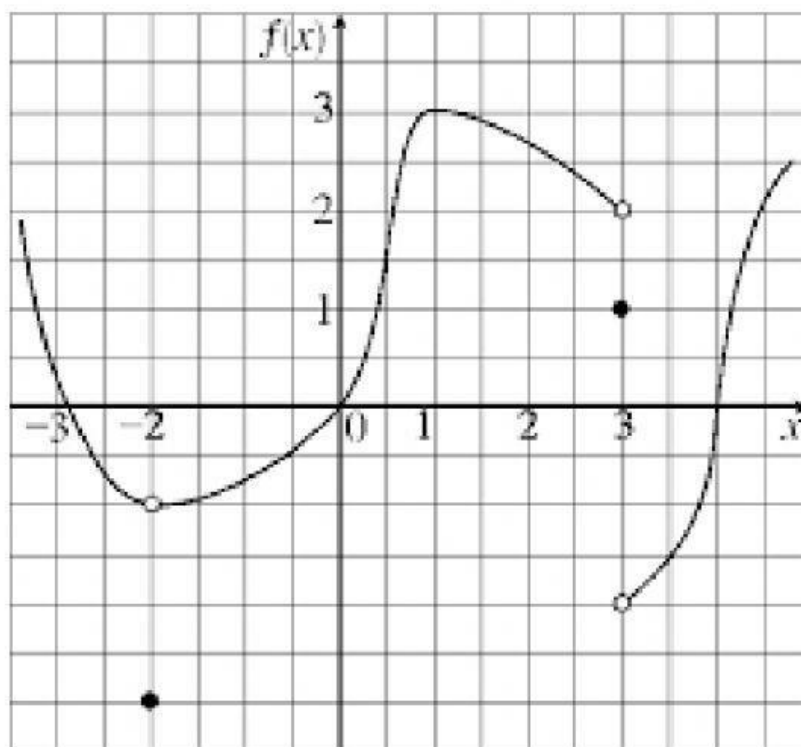
Find the limit as $x \rightarrow 1^-$



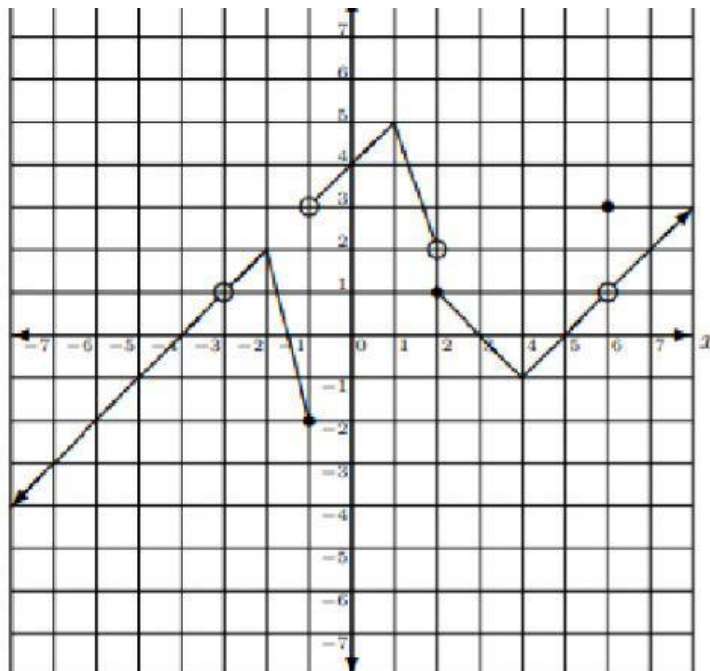
Find the limit as $x \rightarrow -4$



Find the limit as $x \rightarrow -4$



Find the limit as $x \rightarrow 0$



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

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

17. $\lim_{x \rightarrow 6^-} f(x) =$

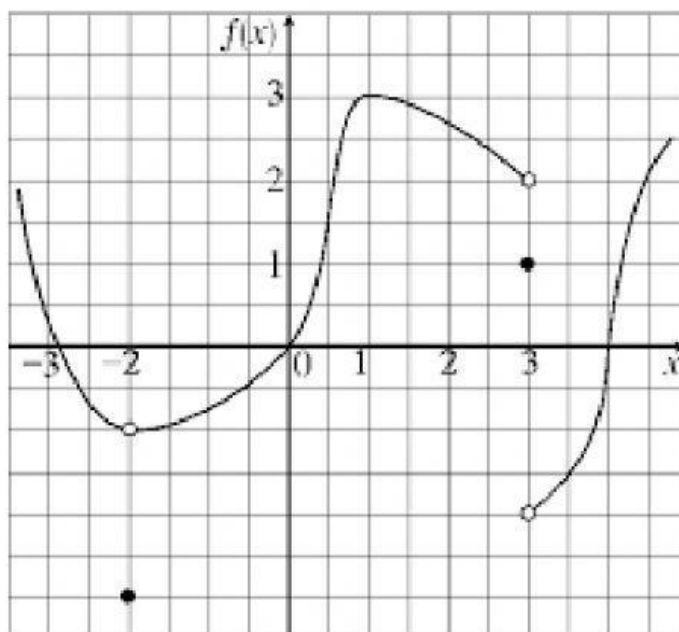
2. $\lim_{x \rightarrow -3^+} f(x) =$

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

18. $\lim_{x \rightarrow 6^+} f(x) =$

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

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



Find the limit as $x \rightarrow 3^+$