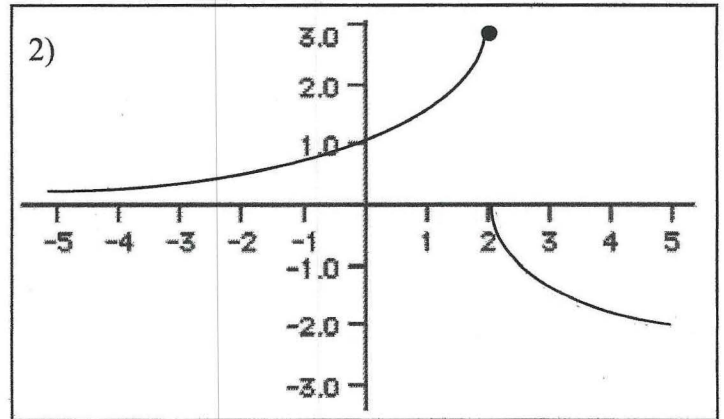
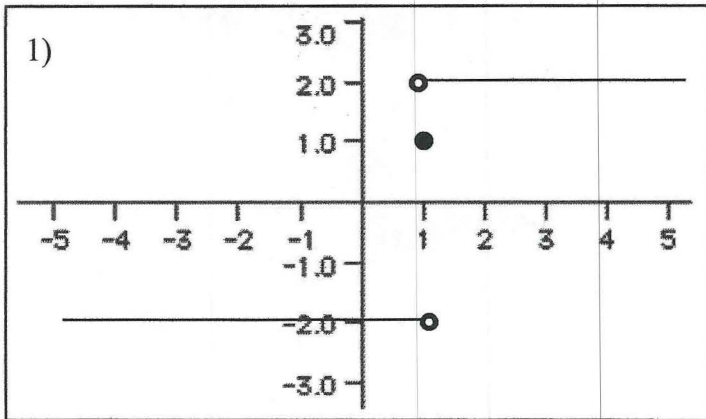
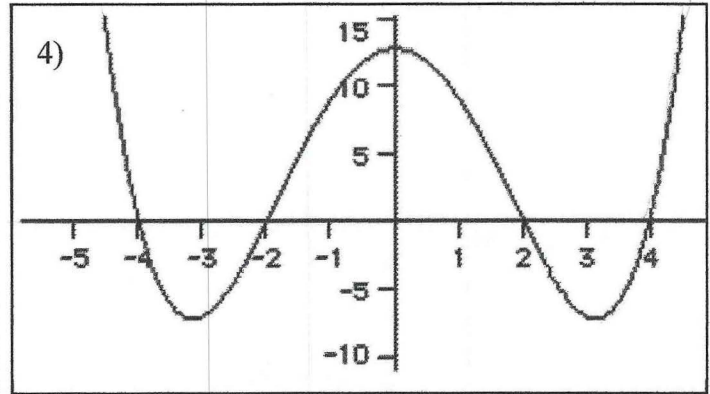
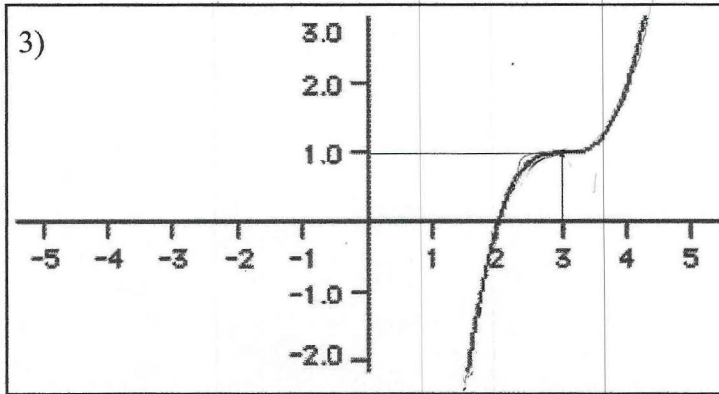


# Graphical Approach to Limits - Homework



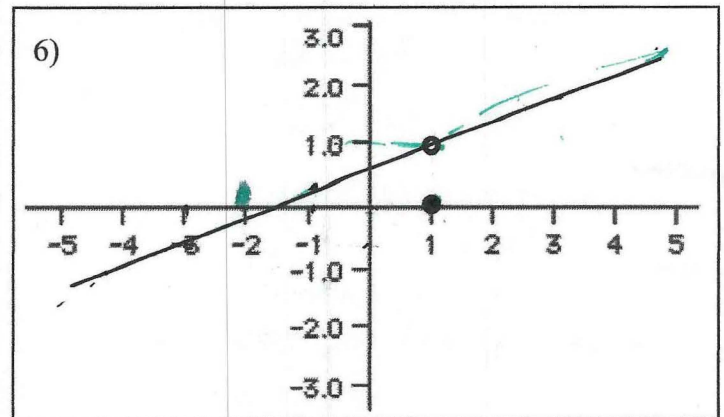
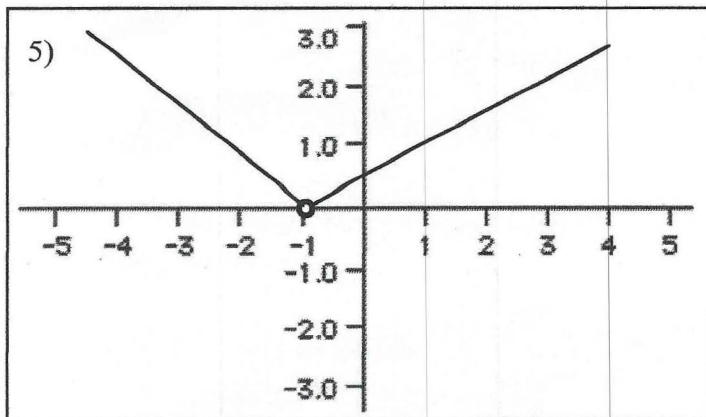
- a)  $\lim_{x \rightarrow 1^-} f(x) = -2$     b)  $\lim_{x \rightarrow 1^+} f(x) = 2$     c)  $\lim_{x \rightarrow 1} f(x) DNE$   
 d)  $f(1) = 1$     e)  $\lim_{x \rightarrow -\infty} f(x) = -2$     f)  $\lim_{x \rightarrow \infty} f(x) = 2$

- a)  $\lim_{x \rightarrow 2^-} f(x) = 3$     b)  $\lim_{x \rightarrow 2^+} f(x) = 0$     c)  $\lim_{x \rightarrow 2} f(x) DNE$   
 d)  $f(2) = 3$     e)  $\lim_{x \rightarrow -\infty} f(x) = 0$     f)  $\lim_{x \rightarrow \infty} f(x) = -\infty$



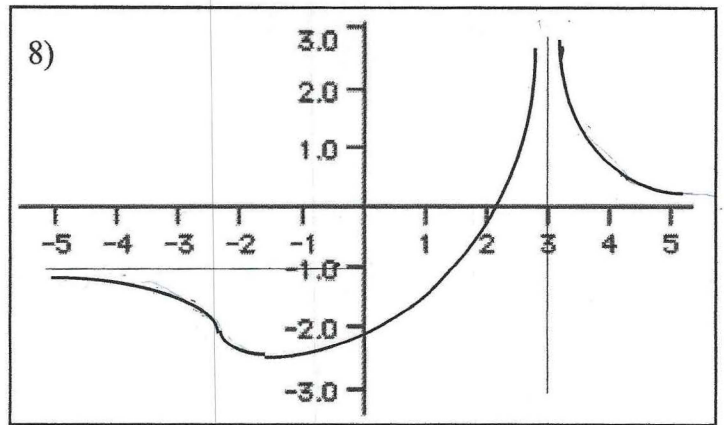
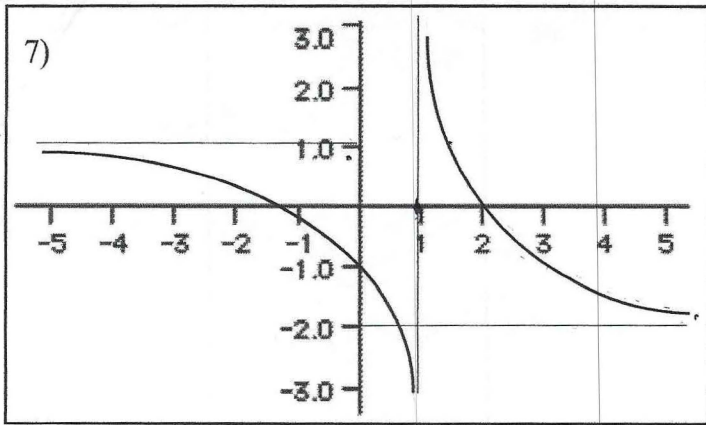
- a)  $\lim_{x \rightarrow 3^-} f(x) = 1$     b)  $\lim_{x \rightarrow 3^+} f(x) = 1$     c)  $\lim_{x \rightarrow 3} f(x) = 1$   
 d)  $f(3) = 1$     e)  $\lim_{x \rightarrow -\infty} f(x) = -\infty$     f)  $\lim_{x \rightarrow \infty} f(x) = \infty$

- a)  $\lim_{x \rightarrow 0^-} f(x) = 13$     b)  $\lim_{x \rightarrow 0^+} f(x) = 13$     c)  $\lim_{x \rightarrow 0} f(x) = 13$   
 d)  $f(0) = 13$     e)  $\lim_{x \rightarrow -\infty} f(x) = \infty$     f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



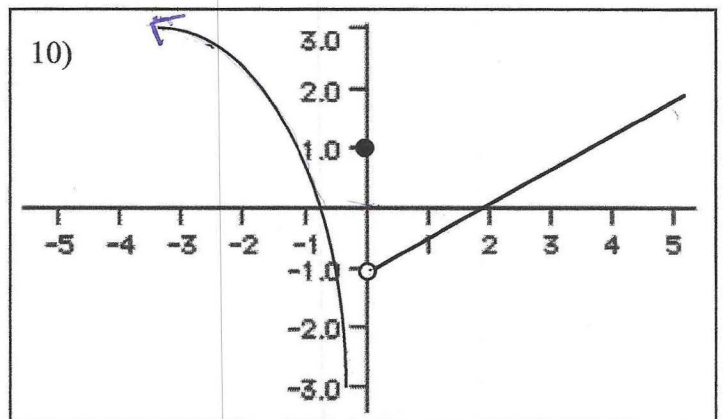
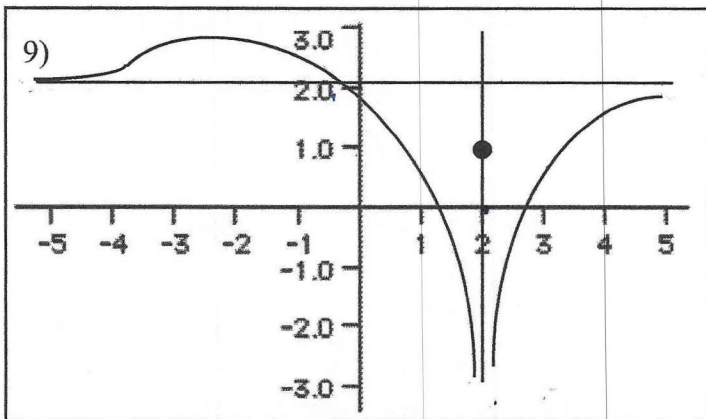
- a)  $\lim_{x \rightarrow 1^-} f(x) = 0$     b)  $\lim_{x \rightarrow 1^+} f(x) = 0$     c)  $\lim_{x \rightarrow 1} f(x) = 0$   
 d)  $f(-1) = DNE$     e)  $\lim_{x \rightarrow -\infty} f(x) = \infty$     f)  $\lim_{x \rightarrow \infty} f(x) = \infty$

- a)  $\lim_{x \rightarrow 1^-} f(x) = 1$     b)  $\lim_{x \rightarrow 1^+} f(x) = 1$     c)  $\lim_{x \rightarrow 1} f(x) = 1$   
 d)  $f(1) = 0$     e)  $\lim_{x \rightarrow -\infty} f(x) = -\infty$     f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



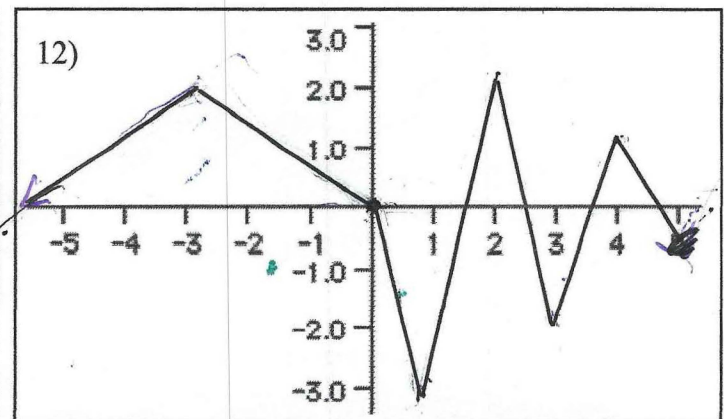
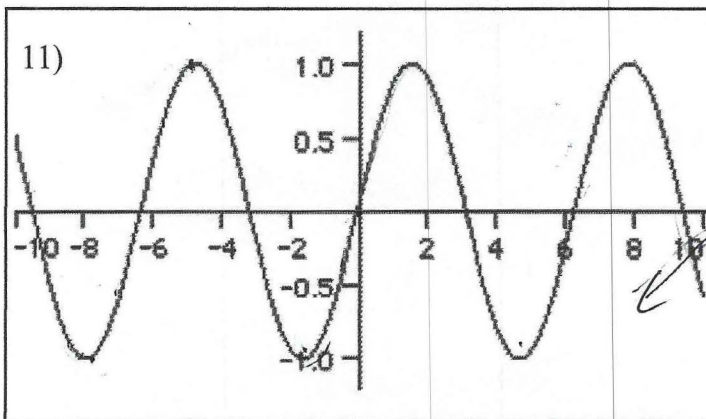
- a)  $\lim_{x \rightarrow 1^-} f(x) = -\infty$  b)  $\lim_{x \rightarrow 1^+} f(x) = \infty$  c)  $\lim_{x \rightarrow 1} f(x) = DNE$   
 d)  $f(1) = DNE$  e)  $\lim_{x \rightarrow -\infty} f(x) = 1$  f)  $\lim_{x \rightarrow \infty} f(x) = -2$

- a)  $\lim_{x \rightarrow 3^-} f(x) = \infty$  b)  $\lim_{x \rightarrow 3^+} f(x) = \infty$  c)  $\lim_{x \rightarrow 3} f(x) = \infty$   
 d)  $f(3) = DNE$  e)  $\lim_{x \rightarrow -\infty} f(x) = -1$  f)  $\lim_{x \rightarrow \infty} f(x) = 0$



- a)  $\lim_{x \rightarrow 2^-} f(x) = -\infty$  b)  $\lim_{x \rightarrow 2^+} f(x) = -\infty$  c)  $\lim_{x \rightarrow 2} f(x) = -\infty$   
 d)  $f(2) = 1$  e)  $\lim_{x \rightarrow -\infty} f(x) = 2$  f)  $\lim_{x \rightarrow \infty} f(x) = 2$

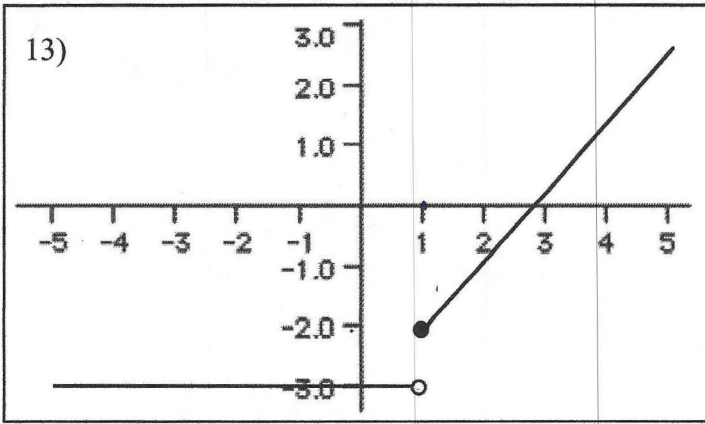
- a)  $\lim_{x \rightarrow 0^-} f(x) = -\infty$  b)  $\lim_{x \rightarrow 0^+} f(x) = -1$  c)  $\lim_{x \rightarrow 0} f(x) = DNE$   
 d)  $f(0) = 1$  e)  $\lim_{x \rightarrow -\infty} f(x) = \infty$  f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



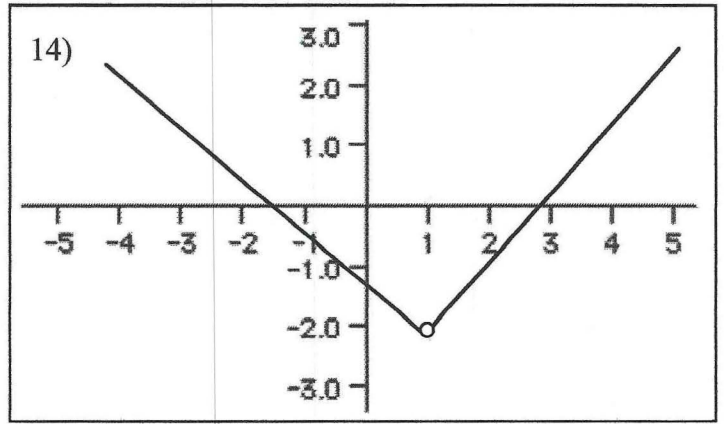
- a)  $\lim_{x \rightarrow 0^-} f(x) = 0$  b)  $\lim_{x \rightarrow 0^+} f(x) = 0$  c)  $\lim_{x \rightarrow 0} f(x) = 0$   
 d)  $f(0) = 0$  e)  $\lim_{x \rightarrow -\infty} f(x) = DNE$  f)  $\lim_{x \rightarrow \infty} f(x) = DNE$

- a)  $\lim_{x \rightarrow 0^-} f(x) = 0$  b)  $\lim_{x \rightarrow 0^+} f(x) = 0$  c)  $\lim_{x \rightarrow 0} f(x) = 0$   
 d)  $f(0) = 0$  e)  $\lim_{x \rightarrow -\infty} f(x) = -\infty$  f)  $\lim_{x \rightarrow \infty} f(x) = 0$

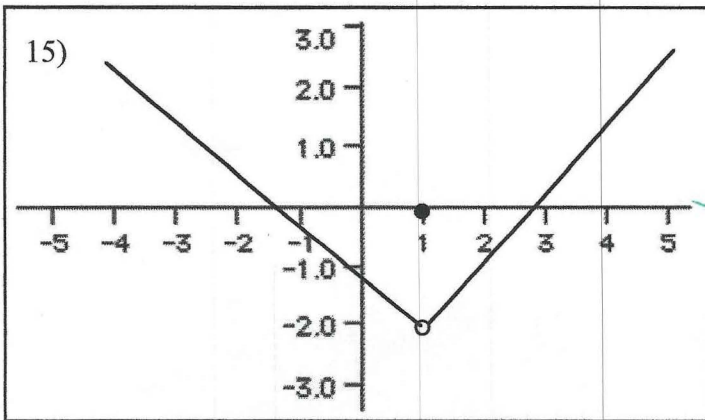




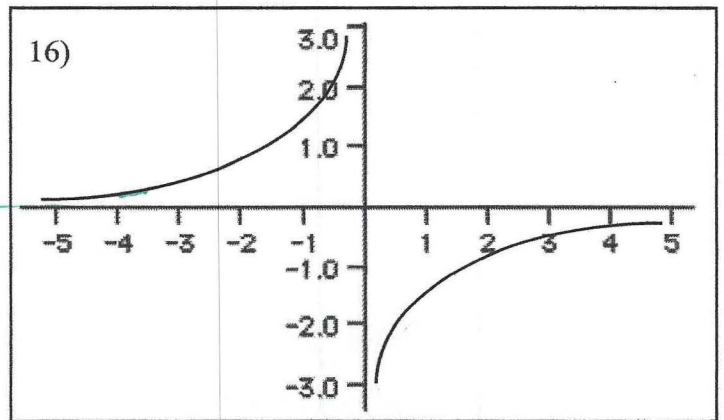
- a)  $\lim_{x \rightarrow 1^-} f(x) = -3$  b)  $\lim_{x \rightarrow 1^+} f(x) = -2$  c)  $\lim_{x \rightarrow 1} f(x) = DNE$   
 d)  $f(1) = -2$  e)  $\lim_{x \rightarrow -\infty} f(x) = -3$  f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



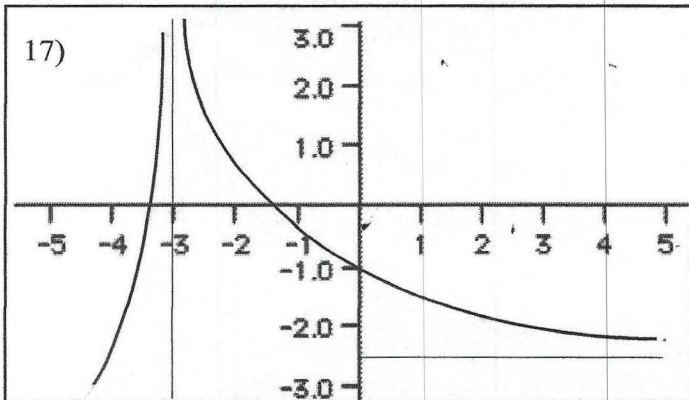
- a)  $\lim_{x \rightarrow 1^-} f(x) = -2$  b)  $\lim_{x \rightarrow 1^+} f(x) = -2$  c)  $\lim_{x \rightarrow 1} f(x) = -2$   
 d)  $f(1) = DNE$  e)  $\lim_{x \rightarrow -\infty} f(x) = \infty$  f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



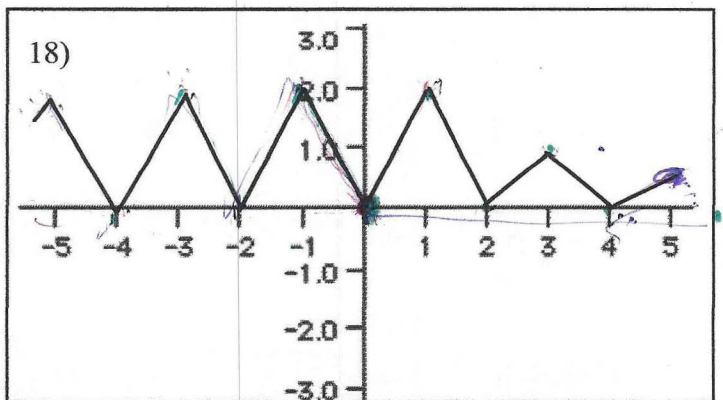
- a)  $\lim_{x \rightarrow 1^-} f(x) = -2$  b)  $\lim_{x \rightarrow 1^+} f(x) = -2$  c)  $\lim_{x \rightarrow 1} f(x) = -2$   
 d)  $f(1) = 0$  e)  $\lim_{x \rightarrow -\infty} f(x) = \infty$  f)  $\lim_{x \rightarrow \infty} f(x) = \infty$



- a)  $\lim_{x \rightarrow 0^-} f(x) = \infty$  b)  $\lim_{x \rightarrow 0^+} f(x) = -\infty$  c)  $\lim_{x \rightarrow 0} f(x) = DNE$   
 d)  $f(0) = DNE$  e)  $\lim_{x \rightarrow -\infty} f(x) = 0$  f)  $\lim_{x \rightarrow \infty} f(x) = 0$



- a)  $\lim_{x \rightarrow -3^-} f(x) = \infty$  b)  $\lim_{x \rightarrow -3^+} f(x) = -\infty$  c)  $\lim_{x \rightarrow -3} f(x) = DNE$   
 d)  $f(-3) = DNE$  e)  $\lim_{x \rightarrow -\infty} f(x) = -\infty$  f)  $\lim_{x \rightarrow \infty} f(x) = -2.5$



- a)  $\lim_{x \rightarrow 0^-} f(x) = 0$  b)  $\lim_{x \rightarrow 0^+} f(x) = 0$  c)  $\lim_{x \rightarrow 0} f(x) = 0$   
 d)  $f(0) = 0$  e)  $\lim_{x \rightarrow -\infty} f(x) = DNE$  f)  $\lim_{x \rightarrow \infty} f(x) = 0$

$x \rightarrow -\infty$