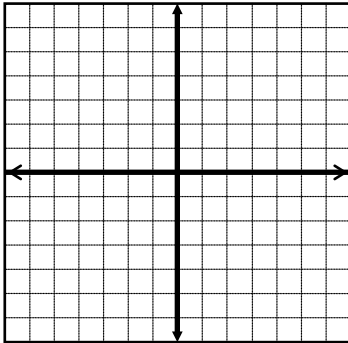


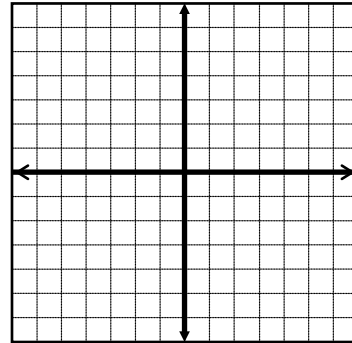
### Cumulative Review D

Graph.

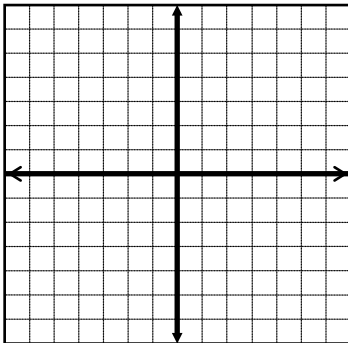
1)  $f(x) = -2\sqrt{x-1}$



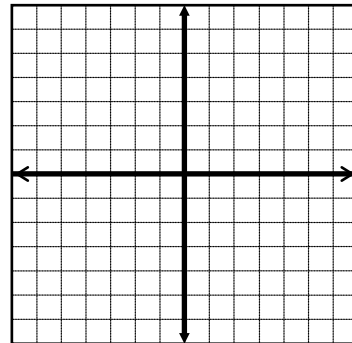
2)  $f(x) = \frac{x+1}{x^2-3x-4}$



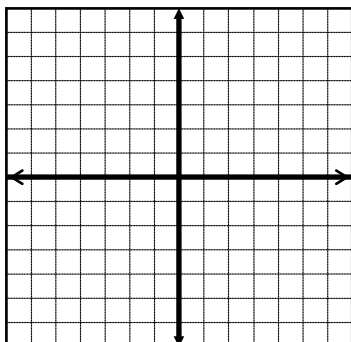
3)  $f(x) = -e^{x+1} + 3$



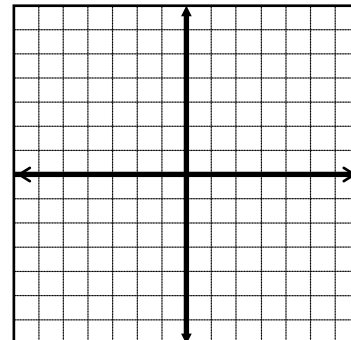
4)  $f(x) = -x^2 - 5x + 6$



5)  $f(x) = \frac{2x^2 + x - 1}{x + 2}$

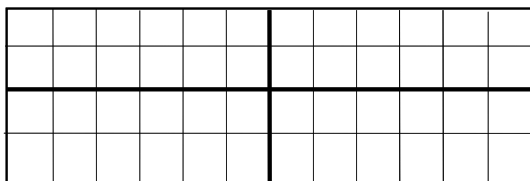


6)  $f(x) = \ln(x+3) + 2$

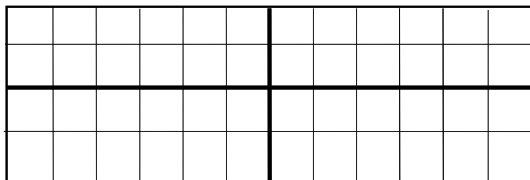


Graph one or more periods. Be sure to label all units.

7)  $y = \cos(2x + \pi)$



8)  $y = -\tan\left(\frac{x}{2}\right) + 1$



Find the limit.

9)  $\lim_{x \rightarrow 2} \frac{x^2 + 2x - 8}{x^3 - 8}$

10)  $\lim_{x \rightarrow -\infty} \frac{x + 2}{3x^2 + 2x - 1}$

11)  $\lim_{x \rightarrow 7} \frac{\sqrt{x+2} - 3}{x - 7}$

12)  $\lim_{x \rightarrow 2^+} \frac{x^2 - 5x + 6}{x - 2}$

Use the definition of continuity to determine for what numbers, if any, the given function is discontinuous.

13)  $f(x) = \frac{x-1}{x^2 + 3x - 4}$

14)  $f(x) = \begin{cases} \frac{x^2 - 4}{x - 2} & \text{if } x \neq 2 \\ x + 1 & \text{if } x = 2 \end{cases}$