

Name: _____

Date: _____

Pd: _____

For each given function:**Find the limit as x approaches the given c .**

1) $\lim_{x \rightarrow 2} -x^2 + 4x$

2) $\lim_{x \rightarrow 3} \frac{\sqrt{5x+10}}{x-3}$

3) $\lim_{x \rightarrow 0} 1 + \frac{1}{x}$

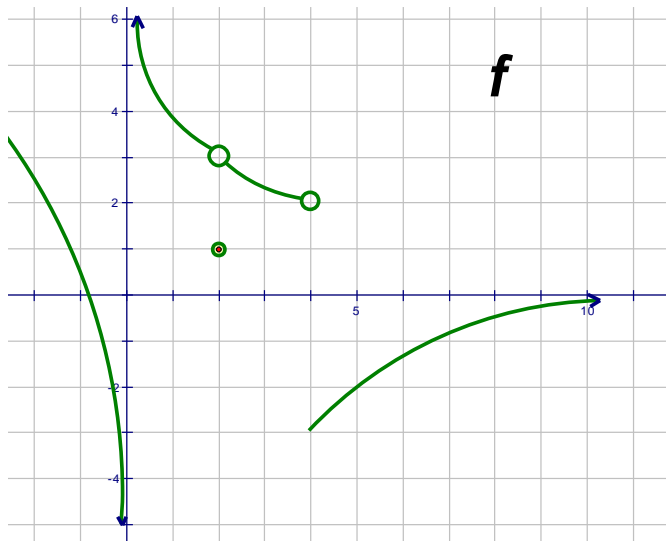
Use the graph at the right to answer questions 4 – 7.

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

5) $\lim_{x \rightarrow 4^-} f(x) =$

6) $\lim_{x \rightarrow 4} f(x) =$

7) $\lim_{x \rightarrow 0} f(x) =$

**Find the limit (show your work):**

8. $\lim_{x \rightarrow -4} \frac{x^2 + x - 12}{x + 4}$

9. $\lim_{x \rightarrow 3} \frac{\sqrt{x+1} - 2}{x-3}$

10. $\lim_{\Delta x \rightarrow 0} \frac{(x + \Delta x)^2 - (x + \Delta x) + 5 - (x^2 - x + 5)}{\Delta x}$