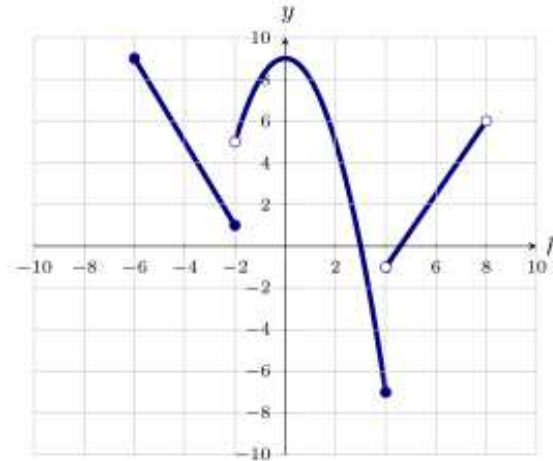


YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [6 points] Consider the following graph. Calculate the following:



$$f(-2) =$$

$$f(4) =$$

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

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

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

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

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

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

2. [6 points] Calculate algebraically, showing all steps:

(a) $\lim_{x \rightarrow -3} \frac{x^2 - 4x - 21}{x + 3} =$

(b) $\lim_{x \rightarrow 4} \frac{\sqrt{2x + 1} - 3}{x - 4} =$